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TRANSPORTATION EQUIPMENT NOISE EMISSION CONTROLS

Proposed Standards for Medium and Heavy Duty Trucks

ENVIRONMENTAL PROTECTION AGENCY

[40 CFR Part 205]

[FRL 281-6]

TRANSPORTATION EQUIPMENT NOISE EMISSION FOR MEDIUM AND HEAVY DUTY TRUCKS

Notice of Proposed Rulemaking

The Environmental Protection Agency proposes to establish a new part of Title 40 of the Code of Federal Regulation establishing noise emission standards for medium and heavy duty trucks distributed in commerce.

I. Introduction

A. *Statutory authority.* Through the Noise Control Act of 1972 (86 Stat. 1234), Congress established a National policy "to promote an environment for all Americans free from noise that jeopardizes their health and welfare." In pursuit of that policy, Congress stated, in section 2 of the Act, "that, while primary responsibility for control of noise rests with State and local governments, Federal action is essential to deal with major noise sources in commerce, control of which requires National uniformity of treatment." As part of essential Federal action, subsection 5(b)(1) requires the Administrator, after consultation with appropriate Federal agencies, to publish a report or series of reports "identifying products (or classes of products) which in his judgment are major sources of noise." Further, Section 6 of the Act requires the Administrator to publish proposed regulations for each product, which is identified or which is part of a product class identified as a major source of noise, where in his judgment noise standards are feasible and which fall into various categories of which transportation equipment is one. Pursuant to subsection (b)(1), the Administrator has published a report which identified medium and heavy duty trucks having a gross vehicle weight rating (GVWR) in excess of 10,000 pounds as a major source of noise. This report appeared in the Federal Register, at 39 FR 22297 (June 21, 1974).

B. *Relationships to Other Parts of the Act.* Labeling is authorized under section 6(c)(1) to inform the truck user of any information concerning maintenance, use and repair of the truck.

Section 10 of the Act establishes prohibited acts in relation to products for which section 6 regulations are applicable. Distribution in commerce of any new product manufactured after the effective date of specified section 6 regulations is prohibited, unless it is in conformity with such regulations. Removal or rendering inoperative of any device or element of design incorporated into any product in compliance with section 6 regulations prior to its sale or delivery to the ultimate purchaser or while it is in use is prohibited by any person other than for purposes of maintenance, repair, or replacement.

Section 11 of the Act specifies enforcement penalties for violation of any prohibited acts under section 10(a)(1), (3), (5) and (6). Such penalties include a fine of not more than $25,000 per day of violations or imprisonment for not more than one year or both if the violation is determined to have been willful or knowing. Section 12 provides authority for citizen suits, whereby any person may bring a civil action against any person who is alleged to be in violation of Federal regulations concerning products regulated under section 6.

Section 13 of the Act specifies records, reports, and information which shall be maintained by manufacturers of products required to conform with section 6 or section 8 regulations.

Section 16(d) grants the Administrator the authority to issue subpoenas for the attendance and testimony of witnesses and the production of books, records and reports to assist him in collecting information to carry out the purposes of the Act.

II. Statutory Requirements for the Proposed Regulations

The Administrator has determined that noise emission standards are feasible for medium and heavy duty trucks. In arriving at the noise limit considered requisite to protect public health and welfare, the Administrator has taken into account the degree of noise reduction achievable through application of the best available technology and the cost of compliance. Further, the Administrator has given appropriate consideration to standards under other laws designed to safeguard the health and welfare of persons.

To meet the requirements of the Act, to apply "the best available technology, taking into account the cost of compliance," the Agency constructed definitions of the terms "best available technology" and "cost of compliance." In so doing, the Agency carefully considered the strict language of the Act, its legislative history, and other relevant data. Based thereon, for the purposes of these regulations, the following definitions have been established by the Administrator.

"Best available technology" was defined as that noise abatement technology available which produces the greatest achievable meaningful reduction in the noise produced by medium and heavy duty trucks. "Available technology" is further defined to include:

1. Technology applications that have been demonstrated to be feasible, as a prototype product upon which production manufacturing may be based.

2. Technology for which there will be a production capacity to produce the estimated number of parts required in reasonable time to allow for production installation on, or manufacture of new products prior to the effective date of the regulation.

3. Technology that is compatible with all safety regulations and takes into account operational considerations, including maintenance and other pollution control equipment.

The cost of compliance, as used in this regulation, means the cost of identifying what action must be taken to meet the specified noise emission level, the cost of taking that action, potential decrease in sales as a result of higher product cost, as well as any additional cost of operation and maintenance. The cost for future replacement parts and possible decrease in useful life of vehicle was also considered.

To determine what is the best available technology and the cost of compliance, the Agency amassed information from numerous sources including: (1) Studies performed by Agency personnel; (2) studies performed under contract to the Agency; (3) submission by other Federal agencies; (4) submissions by the public; (5) submissions by industry; and (6) data in available literature.

III. Development of the Proposed Regulation

In order to develop regulations which fulfill these criteria, the Administrator undertook a study of medium and heavy duty trucks. On February 27, 1974 an advance notice of proposed rule making on medium and heavy duty truck standards was published in the Federal Register soliciting public comment (39 FR 7955). The docket established as a result of this action is maintained at the EPA headquarters, 4th & M Streets SW., Washington, D.C. 20460. A task force of Federal and State government representatives was convened to develop recommendations to EPA for the scope and content of Federal medium and heavy duty truck emission regulations. The information prepared for the EPA's 1971 Report to the President and Congress on Noise was reviewed. EPA staff, task force, and consultants gathered and analyzed technical information from other sources, and additional data was acquired in areas where there was little or no existing information. All of this information, which is summarized briefly below, is open for public inspection at the Office of Noise Abatement and Control of EPA, Room 1101, Crystal Mall, Building No. 2, 1921 Jefferson Davis Highway, Arlington, Virginia. The Background Document for Proposed Medium and Heavy Truck Noise Regulations giving the details of the information base from which the proposed regulation was derived is available from the Public Information Center, Environmental Protection Agency, 401 M Street SW., Washington, D.C. 20460.

IV. Background Information

A. *General.* The proposed regulation is the first in a series of regulations to be proposed in a new and unprecedented area for Federal regulation. In arriving at the proposed regulatory level, the Agency considered information accrued, from a number of sources, in regard to technology, cost, economic impact and health and welfare. The accrued information is presented in the Background Document for Proposed Medium and Heavy Truck Noise Emission Regulations.

The Agency is committed by statute to

indepth public participation in the decision process for its environmental regulations. That policy encourages and solicits contributions to the public docket and communications on technology costs, health and welfare and economic impact or benefits and any other attributes of the particular subject. These contributions are desired from as many diverse views as are possible. Such information when submitted is fully analyzed and where this so indicates, necessary changes in proposals will be made, and explained in the final regulations.

In accordance with this policy, all those having views and recommendations are solicited to submit their comments, as provided for herein.

B. *Technology.* Medium and heavy duty trucks are one of the major means of transportation of goods and services in this country.

I. Introduction

In describing trucks with gross vehicle weight ratings (GVWR) greater than 10,000 pounds, a wide range of vehicle types are involved. At one extreme of the vehicle characteristics for different types of trucks there are gasoline-powered 2-axle single vehicles with 4 wheels and GVWR of less than 13,000 pounds. At the other extreme there are 11-axle combination vehicles with 42 wheels, turbocharged diesel engines and GCWR in excess of 130,000 pounds. Here GCWR, the gross combination weight rating, means the value specified by the manufacturer as the maximum loaded weight of a combination vehicle for which it is designed.

Although it may be difficult to define a typical truck vehicle, trucks can be described in terms of the following attributes: gross vehicle weight rating, the major designed use, the number of axles, the type and size of engine, and the style of cab.

Of the manufactured trucks to which this proposed regulation is applicable (GVWR greater than 10,000 pounds), it is expected that almost 85 percent of the trucks with GVWR less than 26,000 pounds will be gasoline-powered. Conversely, more than 96 percent of the trucks with GVWR greater than 26,000 pounds can be expected to be diesel-powered.

A statistical analysis of the census data on the characteristics and uses of the truck population in the United States, which was collected and made available on magnetic tape by the Bureau of the Census, provides an estimate of the total truck population in the United States in 1972.

The total truck population with GVWR in excess of 10,000 pounds in 1972 was estimated to be 3,533,000 trucks. The distribution of these trucks by GVWR category and type of engine is shown in Table 1.

Table 1.—*Total truck population, 1972*

GVWR category	Gasoline engine		Diesel engine		Total trucks
	Number	Percent	Number	Percent	
Medium duty	2,335,000	90	41,000	2	2,376,000
Heavy duty	509,000	44	648,000	56	1,157,000
Total	2,844,000	80	689,000	20	3,533,000

Total truck population in 1972 can also be compared with new truck production in the same GVWR categories in Table 2, illustrating that new truck production is less than 12 percent of the in-use population during that year. This changing mix of "new" and "old" trucks in the population was studied carefully by the Agency in developing the regulatory approach detailed in this proposed regulation.

Table 2.—*New truck production, 1972*

GVWR category	Gasoline engine		Diesel engine		Total trucks
	Number	Percent	Number	Percent	
Medium duty	227,263	98	5,045	2	232,308
Heavy duty	41,994	23	138,044	77	180,038
Total	269,257	65	143,089	35	412,346

II. Current New Truck Noise Levels

To develop a technical data base, noise data of 384 diesel trucks and 18 gasoline trucks over 10,000 pounds GVWR, were acquired from truck manufacturers. The mean noise level for existing production diesel trucks was 84.7 dB(A) with a standard deviation of 2.24 dB(A) and a 14 dB(A) range (78 to 92 dB(A)). For existing production gasoline trucks the mean noise level was 83.5 dB(A) with a standard deviation of 2.35 dB(A) and a 9 dB(A) range (78 to 86 dB(A)). The above sound measurements were made in accordance with SAE J366a or SAE J366b, J366b being the latest revision incorporating no significant changes from the "a" version from an acoustical standpoint. The large majority of the above data was also measured over concrete or sealed asphalt in the SAE J366 specified measurement site.

III. Noise Sources and Control

Total truck noise is composed of a number of component sources, the control of which on an individual basis may be combined in a variety of ways to meet specified limits for overall truck noise. Of the many truck components that contribute to total truck noise levels, the most significant are the engine, fan, intake, exhaust, and tires. The relative importance of each of these sources varies according to the type of truck operation, but each requires quieting for the overall truck noise to reach a level of 75 dB(A), and many will require quieting for trucks to meet 83 dB(A) and 80 dB(A) levels.

a. *Engine.* The motion of engine components and the sudden increase in cylinder pressure occurring during combustion excites the engine structure, causing vibration of the external surfaces and attendant sound radiation. The magnitude of the radiated noise depends primarily on engine type and design, not on engine size or power. Gasoline-fueled engines tend to be somewhat quieter than diesel-fueled engines. The reason for this is that in present diesel engines the combustion forces are greater, especially in the mid to high frequencies where resonant structural nodes are present in the engine.

Possible noise control treatments include modifications to the engine itself and modifications to control the path by which engine structural noise is radiated to the exterior.

Reduction of combustion-related noise would be particularly desirable for diesel engines and is being investigated by the major engine manufacturers through fuel delivery rate control, turbocharging, combustion chamber redesign, and improved injector spray patterns. In particular, one major manufacturer is phasing all naturally aspirated engines out of production, replacing them with turbocharged models.

Control of machinery-related forces (e.g., oscillating pistons slapping the cylinder walls), which can be achieved primarily by changing or reducing the structural response of the engine, is being investigated through better ways of supporting the piston in the cylinder, and obtaining better balance and closer tolerances in production engines. This technique, in combination with turbocharging, was used by one manufacturer to reduce the overall noise of a diesel-powered truck to 75 dB(A).

Several engine manufacturers are presently marketing quieting packages that attenuate engine structural noise by altering its transmission path. Depending on the particular quieting package and truck configuration, engine noise reduction ranges from 0 to 4 dB(A), with most packages providing about 2–3 dB(A) reduction. The packages generally consist of covers for the sides of the engine block and oil pan, vibration isolation of the valve covers or air intake manifolds and crossovers and, if possible, damping treatment on sheet metal covers. Close-fitting covers which extend over the entire engine structure have been reported to provide 15 to 20 dB(A) reduction in engine noise. One major engine manufacturer indicated that such packages could reduce the overall truck noise by 10 to 15 dB(A).

However, the engine manufacturers also indicated that these packages were not presently acceptable because of problems with cooling and service access.

To obtain significantly lower overall truck noise levels, most engine manufacturers will probably prefer an enclosure built into the truck cab rather than fitted onto the engine. Three truck manufacturers (International Harvester, White, Freightliner) under contract to DOT have investigated enclosure designs for cab-over engine trucks. The enclosures involve a tunnel configuration with the cooling fan at the enclosure entrance. Air flows through the enclosure and around the engine via acoustically lined ducts. All three manufacturers have built prototype vehicles generating less than 80 dB(A), one as low as 72 dB(A). (This truck uses a large frontal area radiator to reduce cooling fan requirements; the large engine tunnel formed by the underside of the cab gives the cooling air room to flow past the engines.) Thus, full or partial enclosures built into the cab structure are technologically feasible. These enclosures will be necessary to reduce the overall noise of trucks equipped with standard diesel engines to 75 dB(A). Fewer trucks will require enclosures to meet an 80 dB(A) overall level.

b. *Fan.* Most current truck cooling fans have not been designed for aerodynamic efficiency or low noise. Truck fans are generally made of stamped sheet metal blades riveted to a hub that is turned by means of a belt and pulley arrangement connected to the engine. The fans tend to be small and operate at high speeds, which leads to high noise levels, since fan noise generation is proportional to fan speed.

Fan noise on gasoline-powered trucks tends to be higher than on diesel-powered trucks because the greater heat rejection of gasoline engines requires more cooling air flow. Neither cab nor engine type appears to have a significant effect on diesel-powered truck fan noise.

The control of fan noise must be viewed in terms of total cooling system design. Some noise reduction can be achieved by modifying the radiator, the shutters, the fan shroud, and the fan itself. Noise reduction techniques include installation of larger radiators, thermostatically controlled shutters, fan shrouds, larger diameter and slower turning fans, and thermostatically controlled fans.

Data indicates that most fans generate less than 80 dB(A). Those that are noisier can be replaced by a slightly different fan model and fan/engine speed ratio. Reduction of fan noise to 75 dB(A) may require somewhat larger radiator cores and larger, slower fans. Levels can be reduced to 65 dB(A) with larger radiator cores, larger and slower fans, careful design of fan shrouds, and a thermostatically controlled fan clutch that is phased with a shutter thermostat to prevent fan operation while the shutters are closed.

c. *Air intake system.* These systems can range in size and complexity from a simple air filter mounted on top of a carburetor to an external air filter with ducts leading to the engine and a cab mounted snorkel unit. Noise is generated by unsteady flow of air into engine cylinders. Supercharged engines with Rootes blowers also exhibit tones associated with the blade-passage frequency of the blowers. Turbochargers tend to smooth flow irregularities associated with cylinder charging.

Intake systems may be readily quieted by air filters. Studies by DOT in 1973 indicate that in all cases the intake systems they examined could be quieted to source levels below 75 dB(A) and in some cases to below 65 dB(A).

d. *Exhaust system.* Exhaust related noise consists of two distinct sources: outlet noise and shell radiation. Outlet noise emanates from the exhaust system terminus and is generated by the pressure pulses of exhaust gases from the engine. Shell-related noise consists of radiation from the external surfaces of the pipes and mufflers of the exhaust system. It is generated by two mechanisms, the transmission and subsequent radiation of engine vibration to the exhaust system and the transmission of internal sound to the exterior of the pipe.

Studies have shown that source levels of unmuffled outlet noise for diesel engines can range from 82 to 105 dB(A) at 50 feet. Exhaust shell noise is low enough that very few trucks require modifications to this source to reach overall levels of 83B(A). However, some modification is required to achieve overall levels of 80 dB(A) and lower.

Noise control techniques for exhaust noise consist of muffling exhaust outlet noise, using double-wall construction on pipes and mufflers to reduce radiation from exhaust line elements and incorporating vibration-isolated clamps connecting the exhaust pipe to the engine to reduce the engine vibration source of shell noise.

Mufflers are available to reduce the exhaust source levels of 6 cylinder in-line turbocharged diesel engines, naturally aspirated 4 stroke diesel engines, and turbocharged 4 stroke V engines to 75 dB(A).

The unmuffled source levels of popular 2-stroke engines are at least 10 dB(A) higher than for other engines. No mufflers are presently available to reduce the source level of these engines to 75 dB(A), but it seems likely that manufacturers could design such a system or combine present designs into a dual configuration.

Further progress in muffler technology is needed to quiet trucks with 12 cylinder 2 stroke diesel engines to overall levels of 83 or 80 dB(A). The anticipated method of reducing exhaust noise on these engines is to use dual or series mufflers.

The addition of turbochargers to diesel engines also reduces the unmuffled exhaust noise—on the order of 5 to 10 dB(A). Thus, turbocharging can greatly increase the ease of obtaining overall truck levels as low as 75 dB(A).

e. *Tires.* Truck tires generate noise by interacting with road surfaces. Numerous factors affect tire noise, including pavement surface, tire tread design, tire load, whether the pavement is wet or dry, and vehicle speed.

There are at least two techniques that may be used to control tire noise: (1) Substitute noisy tires with those which are quieter, and (2) design quiet tires from the start. When considering substitution, available information indicates that it would be desirable to equip trucks entirely with ribbed tires. However, factors other than noise must be considered prior to establishing regulations which could require such substitution. Chief among these is safety, since tires must provide good traction and lateral resistance. Cross-lug tires have been typically used on the drive wheels of a high percentage of tractor-trailer trucks because of tractive requirements, although recent weight station observations indicate a significant preference for rib tires on drive wheels also.

The design of quiet tires requires a technology base that is now beginning to emerge. Tire manufacturers have found that by randomizing tread patterns, pure tones can be spread in the frequency spectrum with a concomitant reduction in community annoyance. Through matching of current tire designs some noise reduction can be achieved. This would entail collection of quiet cross-lug and rib tires for specific applications based on sound emission characteristics.

The Agency carefully considered proposing a standard for high speed noise from medium and heavy trucks. Recognizing that such a standard would, to a substantial degree, largely be a standard on tire noise, the Agency has elected not to propose such a standard at this time.

A regulation establishing limits on noise from interstate motor carriers operating vehicles over 10,000 lbs GVWR/GCWR, at speeds over 35 mph, has been proposed by EPA. The level recommended in that proposed rulemaking was 90 dB(A), measured at 50 feet, and would, when finalized, remove the noisiest tires from use on such vehicles. This Agency, in considering a high speed standard for new medium and heavy trucks, consulted with the National Bureau of Standards, Department of Commerce and the Department of Transportation. It is believed that a new tire standard which will result in levels of noise significantly below 90 dB(A) for medium and heavy trucks is technologically feasible. However, additional effort in ascertaining the cost and economic impact of applying such technology is believed necessary prior to proposing regulations on new tires.

Accordingly, the Agency intends to address the noise resulting from tires used on new medium and heavy trucks in separate rulemaking. EPA places high priority on reducing the noise from tires and, thus, providing substantial relief from high speed traffic noise. Comments and data are, accordingly, solicited on tire noise reduction technology, the costs and economic impact of applying such technology, and recommended practices

and measurement methodologies for the labeling of tires with respect to their noise characteristics.

4. *Measurement Procedure.* After consideration and review of a number of test methods, the Agency selected a modification of SAE J366b as a test procedures for low speed conditions. Principal reasons for selection were:

a. The only adequate data base available to the Agency was measured in accordance with this procedure.

b. The procedure was familiar to the truck manufacturing industry.

The Agency recognizes that this procedure has shortcomings and will consider modifications and changes to the procedure in future rulemaking if such improvements can be shown to correlate to the above referenced measurement procedures.

The FEDERAL REGISTER (June 21, 1974, pages 11197 through 11199) presents the article entitled "Identification of Products as Major Sources of Noise." This document points out that trucks are a major source of noise and further that trucks in both urban situations as well as in high speed freeway situations are major sources of annoyance. Accordingly, standards have been set for the low-speed, high acceleration case (urban noise).

In the urban case there exists a reasonable amount of data (J–366a tests) to provide a baseline for new truck noise levels. Also, for this situation the available technology provides techniques which permit the achievement of definable truck noise levels. These are described in "Background Document for Proposed Medium and Heavy Truck Noise Emission Regulations."

5. *Summary.* By employing known noise reduction techniques, a truck can be quieted to a level somewhat below 75 dB(A), as demonstrated by test trucks. However, the difficulty of quieting increases rapidly as the allowed noise levels are lowered, as follows:

a. To reach 68 dB(A), most present production trucks require a well designed and properly maintained exhaust system.

b. Dropping the level to 83 dB(A) also requires few modifications to most of the trucks. Some will, however, require engine shielding. Others will require an improved cooling system. Such cooling systems are in existence now but their use is limited. The 83 dB(A) level is well within presently available technology.

Lowering the control level to 80 dB(A) will require acoustical treatment for virtually all trucks. At this level, engine noise will be among the prime areas for quieting. The quieter diesel engines which are now in use will require valve and oil pan covers or other relatively simple quieting kits to reduce their noise to acceptable levels. The noisier diesel engine trucks will require a partial engine enclosure, redesign of the cab, and possible redesign of the engine itself. Additional long lead time is projected to accomplish this level of noise emission control.

d. To achieve a level of 75 dB(A), extensive engine shielding is required, as well as the application of best available technology to the cooling, exhaust and other systems of the truck. Considerable redesign is necessary to attain this level, and this also implies a longer lead time.

V. APPLICABILITY

a. *General.* This proposed regulation is applicable to any motor vehicle which has a gross vehicle weight rating (GVWR) in excess of 10,000 pounds, which has been designed for transportation of persons and property on a highway or street and which meets the definition of "new product" in the Act with the exception of special purpose equipment which may be located on or operated from a motor vehicle as discussed in this section.

Therefore, "medium and heavy duty trucks," as used in this proposed regulation, means any motor vehicle over 10,000 pounds GVWR, which includes such vehicles as motor homes, delivery vans and multiaxial straight trucks and tractors, but does not include school buses, intra- and inter-city buses.

Although the technology to achieve noise reduction from buses is similar to that applicable to trucks there are some differences due to engine location, body configurations, and engine compartment size restriction. Additionally, buses have not been identified by the Agency as a major source of noise (No. 121, 39 FR 22297–22299) and therefore the agency is not proposing to regulate their noise emissions at this time.

Further, in developing this regulation, the Agency carefully assessed the meaning of the word "manufacturer" as used in the Act and concluded, based on the phrasing "any person engaged in the manufacturing or assembling of new products," that these proposed regulations are applicable to persons engaged in application of enclosed bodies, racks, flat beds, mixer bodies, boost boxes, etc., to vehicles prior to receipt of the vehicle by the ultimate purchaser, as well as those persons traditionally considered vehicle manufacturers.

The Agency intends that vehicles applicable to these regulations produced by a United States manufacturer in a foreign country are required to comply with these proposed regulations. This applies primarily to production facilities located in Canada at this time.

b. *Truck classification.* Various possibilities were considered as means for defining regulatory classifications. First, splitting trucks into two classes, namely diesel engine powered and gasoline engine powered, was examined. The concept was to set lower noise levels of compliance for gasoline engines than for diesel engines since it was generally assumed that gasoline engines were quieter than diesels. However, the data available on new truck noise emissions showed that the mean levels for gasoline engine trucks and diesel engine trucks differed only by 1.2 dB(A). Further, it was found the gasoline powered and diesel powered engines are used interchangeably in many truck lines offered by major manufacturers. Analysis of new production truck noise shows no trend or correlation to indicate a relationship between overall truck noise emission level with gasoline or diesel powered engine applications. As a result of the above factors, it was not considered reasonable to regulate diesel and gasoline trucks at two different levels.

Another approach considered was to divide trucks according to weight; i.e., Gross Vehicle Weight Rating (GVWR). It was determined, however, that noise level (measured by J366b) correlated poorly with GVWR. The use of GVWR as a means of defining a series of classes, each with its own noise emission regulatory level, was not considered appropriate.

The possibility of using rated engine horsepower as a classification base was examined and the same difficulties which occurred in subcategorization by GVWR applied in the horsepower case; namely, there was no well defined correlation between horsepower and radiated noise level. Accordingly, as with GVWR, it was concluded that it was not reasonable to define a set of classes of trucks based on horsepower and assign a regulatory level to each class.

Finally the basis, for regulatory purposes, was selected to be a single wide range class which included all trucks whose GVWR is 10,000 pounds or greater.

At the GVWR of 10,000 lbs. there exists a natural break between light and medium/heavy trucks. This break point it widely used in industry, and has also been used in the Interstate Motor Carrier Noise Emission Standards. DOT also uses 10,000 lbs. GVWR as a break point between truck categories for safety regulation purposes. The principle characteristic which most vehicles below 10,000 lbs GVWR have is that their noise levels are lower and more nearly like those of automobiles. Such vehicles will be addressed by the Agency in future rulemaking.

c. *Special purpose equipment.* Special purpose equipment which is located on or operated from motor vehicles is not required to meet the noise control standards in this proposed regulation. Such special purpose equipment include but are not limited to, construction equipment, snow plows, garbage compactors and refrigeration equipment. The Agency recognizes that such special purpose equipment may emit significant levels of noise in some situations. If after further analysis of specific types of special purpose equipment, the Agency identifies them as "major sources of noise," they will subsequently be required to be manufactured to emit lower noise levels if technology to do so is available, and/or to be labeled. Such action would be the result of potential future rulemaking by the Agency.

d. *Period of coverage.* The noise standards of these proposed regulations are applicable throughout the actual life of the vehicle. This will encourage proper maintenance, use, and repair practices by vehicle owners throughout the vehicle's life, because compliance with these practices will be requisite for the vehicle

to be included in any Federal or State-ordered recall based on non-compliance with noise standards.

The maintenance instructions requirements of this regulation are the means selected to assure conveyance to the user of instructions on the proper maintenance, use, and repair of that configuration of the vehicle.

e. *Effective date.* The effective dates determined by the Agency for compliance with the proposed noise emission standards are based on cost and economic considerations (as outlined in Section II) to reach the desired noise control levels in as rapid a time frame as considered reasonable. In reaching this determination, the Agency reviewed current development cycles used in the truck manufacturing industry. Such development cycles generally included considerations for development, drawing, prototype construction, durability testing, field testing, and production lead time.

In addition to cost and economic considerations, these determinations included the implications of compliance with absolute standards as specified in these proposed regulations (which requires that no vehicle may exceed the standard) as opposed to an averaging standard, which would require the mean of the distribution not to exceed the standard.

VI. Impact of Proposed Regulation

a. *Noise reduction.* Based on data available to the Agency as a result of this rulemaking activity, the Interstate Motor Carrier rulemaking effort, and other studies, it is clear that trucks are one of the major contributors to traffic noise.

To access the impact of individual truck noise emission reductions the Agency developed a model for predicting the subsequent reduction in overall freeway and urban traffic noise on the basis of an average 24 hour day/night noise exposure (see Background Document for Medium and Heavy Duty Truck Noise Emission Regulations for additional information).

The proposed regulation would reduce individual new truck noise levels by an average of 11dB(A) by the year 1983. Thus, truck noise levels would be lowered into the range of present automotive noise emission levels.

b. *Health and welfare.* Public health and welfare associated with the proposed regulation was assessed in terms of people impacted by freeway and urban traffic noise and the impact relief that would be achieved by the quieted medium and heavy duty trucks.

It is estimated that the equivalent of approximately 2.7 million people in the United States are presently impacted by freeway traffic noise levels (refer to Background Document).

Compliance with the standards established in the proposed regulation is estimated to reduce that impact by approximately 33 percent in 1980 and 59 percent by 1990, which would provide relief to approximately .9 million people, and 1.6 million people, respectively. Similarly, for urban traffic it is estimated that the equivalent of approximately 34.6 million people in the United States are presently impacted. Compliance with the proposed standards is estimated to reduce that impact by approximately 19 percent in 1980, and 54 percent by 1990, which would provide relief to approximately 6.6 million people and 18.7 million people, respectively.

It must be noted that the number of people favorably impacted by these regulations are based on assumptions used in the EPA impact model. However, there is an ever increasing truck population, with continuing highway construction and urbanization in the United States. The mobility of the American populace is such that it is reasonable to believe that most, if not all Americans, are impacted to greater or lesser degrees by noise from motor vehicles, especially large trucks.

c. *Cost and economic impact.* The 1972 population of medium- and heavy-duty trucks to which the proposed regulations are applicable is estimated to be about 3.5 million of which approximately 65 percent are gasoline powered and 35 percent diesel. Based on current trends, this population is estimated to increase to about 5.5 million in 1990 with a greater portion of diesel powered trucks being present.

The approximate increased retail price of a truck to which the regulations are applicable over 1973 prices, to achieve the various noise levels, are:

Noise level	Gasoline truck	Medium-duty diesel truck	Heavy-duty diesel truck
83 dB(A)-----	$0	$105	$195
80 dB(A)-----	125	265	490
75 dB(A)-----	300	1120	1130

The individual prices increase as the allowed level is lowered due to the increase in complexity of noise reduction treatment required. The above figures correspond to the following estimated percentage increase in average truck prices:

Noise level	Medium-duty gasoline trucks	Heavy-duty diesel trucks
	Percent	*Percent*
83 dB(A)-----	0	0.8
80 dB(A)-----	2.2	1.9
75 dB(A)-----	5.2	4.5

Based on 1973 technology, the first year increased capital costs for user/truck purchasing industries are estimated to be $34 million in 1977 for 83 dB(A), $117 million in 1981 for 80 dB(A) and $294 million in 1983 for 75 dB(A). The costs actually incurred in 1983 are expected, in fact, to be less than those cited here as it is fully anticipated that technology of noise control will advance substantially over the ten year period before the 75 dB(A) standard becomes effective.

Annual costs to users (incremental depreciation, cost of capital, and operating expenses) have been estimated as $11.3 million in the first full year in which the regulations takes effect. For several ensuing years the projected annual costs, excluding current year production, are:

1980—$26 million, 1985—$427 million, 1990—$1,183 million.

Costs increase as the allowable level is lowered and as noisy trucks are increasingly phased out of the total truck population on the streets and highways. The 1990 value is clearly a worst case estimate. It assumes no cost reduction whatsoever due to improved technology beyond 1973. Also, the truck population is assumed to increase by approximately 50 percent even with a reduction in forecast sales volume associated with price increases due to regulation. In addition, it does not take into account fuel savings generated by improved cooling systems which are necessary for achieving quieter trucks. The actual costs anticipated in order to meet the standards by the year 1990 are expected to be significantly lower than those cited above.

Various economic impact considerations were assessed to evaluate potential price and operating costs resulting from the proposed standard. Upper bound cost values were used to provide worst case estimates. The following economic impacts are envisioned:

1. Because of the basically strong position of the truck manufacturing industry, the volume changes brought about by noise control regulations will have little overall impact on most firms.

2. The impact of noise abatement upon all classes of truck users (i.e., line haul, contract, and private) will be very small, since the cost of noise abatement represents an increase of less than 1 percent in the annual cost of owning and operating a large diesel truck.

3. Because sales volume changes of engine manufacturers due to the noise emission standards are expected to be relatively small, no substantial change in employment, number of operative plants, market shares, and profitability are expected.

4. The changes in truck volume forecasted will not have a significant impact on muffler manufacturer operation with adequate lead time and appropriate planning. No changes in market shares are expected, since no muffler manufacturer is considered to be in any better competitive position than any other as a result of the noise standards. The major muffler manufacturers have included in their forward planning the possible impact of the noise emission standards on their business; raw material shortages and capacity constraints are unlikely to result from the noise standards.

5. Some significant growth in the fan clutch market appears likely, provided that historic resistance to fan clutches is overcome. The noise emission standards could very well provide the impetus to accelerate widespread fan clutch acceptance.

6. Channels of distribution and truck distribution operations are not expected to change materially as a result of the noise emission standards, because sales volume changes are relatively small. Some accelerated buying immediately before and after noise regulations go into effect may occur as customers try to avoid the price increases. However, this effect will be minimal because the price increase is small in comparison to total truck price.

7. U.S. manufacturers will be in an improved competitive position in foreign markets that require quiet trucks since they will have the experience in the application of noise technology to their products.

8. Imports are not a large factor in the market for medium and heavy duty trucks. It seems unlikely that noise regulation will alter the position of imports within the U.S. market.

9. Based on the foreign trade factors above, no material impact on the balance of trade is anticipated from setting noise standards at Level One, Two, or Three.

VII. Summary of the Proposed Regulation

The proposed regulation limits the noise emissions of new medium and heavy duty trucks having a GVWR of 10,000 pounds or greater to the levels stated below. The levels are applicable to all trucks produced after the stated dates, and extend throughout the useful life of the truck.

Low Speed Standard

January 1977, 83 dB(A) Standard In Force
January 1981, 80 db(A) Standard in Force
January 1983, 75 dB(A) Standard in Force

The measurement procedure upon which the levels are based is an EPA test procedure similar to SAE J366b. Additional information on the test procedures is in the Background Document for Proposed Medium and Heavy Duty Truck Noise Emission Regulations.

The regulation also incorporates a detailed enforcement program which includes production verification testing, labeling requirements, selective enforcement auditing procedures, and requirements applicable throughout the useful life of the vehicle.

VIII. Enforcement

A. *General.* The EPA enforcement strategy under the Noise Control Act of 1972 will place a major share of the responsibility on the manufacturer for pre-sale testing to determine the compliance of new medium and heavy duty trucks with these regulations and noise emission standards. This approach benefits the manufacturer by leaving his personnel in control of many aspects of the compliance program and imposing only a minimum burden on his business. At the same time, the inevitable conflict of interest imposed on the applicant makes monitoring of these tests and manufacturers' actions taken in compliance with these regulations by EPA personnel advisable to ensure that the Administrator is provided with the accurate test data he must have to determine whether the vehicles distributed into commerce by a manufacturer are in compliance with these regulations. Accordingly, the regulations provide that EPA enforcement officers may be present and observe any testing required by these regulations in addition to enforcement officers will be empowered to inspect records and facilities in order to assure that manufacturers are carrying out their responsibilities properly.

The enforcement strategy proposed in these regulations consists of three parts: (1) Production verification, (2) Selective enforcement auditing, and (3) In-use compliance provisions.

B. *Production verification.* Production verification is the testing by a manufacturer or by EPA of selected first production models intended for sale to verify whether a manufacturer has the requisite noise attenuation technology in hand and is capable of applying the technology in a manufacturing process. The tested first production models must conform with the standard prior to any distribution into commerce of that model. Any testing shall be done in accordance with the proposed test procedure.

Production Verification does not involve any formal EPA approval or issuance of certificates subsequent to manufacturer testing, nor is any extensive testing required of EPA. The proposed regulations would require that prior to distribution in commerce of any manufactured configuration, as defined within the regulations, the configuration must undergo production verification. All testing is performed by the manufacturer at his test site, using his equipment and personnel, although the Administrator reserves the right to be present and monitor or perform any testing or require that a manufacturer supply him with vehicles for testing.

The production unit selected for testing is a vehicle configuration, which is more definitive than vehicle category. A vehicle configuration is a subclassification of a category on the basis of type of cab, cooling system, driveline system, air intake system, engine system, exhaust system, and any other parameters which may be designated by the Administrator.

A manufacturer shall verify production vehicles, prior to sale, by one of two methods: The first method will involve testing the first production vehicle (intended for sale) of each configuration.

A vehicle configuration would be considered to have been production verified after the manufacturer has shown, based on the application of the noise measurement tests, that a configuration conforms to the standard.

Alternatively, production verification testing of all configurations produced by a manufacturer may not be required where a manufacturer can establish that the noise levels of some configurations are consistently higher than others or are always representative of other configurations. In such a case the higher emitter would be the only configuration requiring verification testing.

This second method allows a manufacturer in lieu of testing vehicles of every configuration, to group configurations into categories. A category will be defined by basic parameters such as a cab type and engine type, displacement and make. The manufacturer has the option of designating additional categories based on other parameters of his own choice. Within a category, the sound pressure level for each configuration shall be estimated. By categorizing his configurations and successfully verifying the configuration with the highest sound pressure level, all configurations within the category will be considered verified.

These proposed regulations also provide that the Administrator may test or require testing (as the case may be) of additional vehicles as a condition of production verification.

A production verification report must be filed by the manufacturer before any vehicles of the configuration represented therein are distributed in commerce.

A configuration is considered production verified when testing on the first production vehicle of that configuration or a vehicle representing it is completed and a timely report has been mailed to EPA indicating the vehicle conforms to the standards.

If a manufacturer proposes to add a new configuration to his product line or change or deviate from an existing configuration with respect to any of the parameters which define a configuration, the manufacturer must verify the new configuration either by testing a vehicle and submitting data or by filing a report which demonstrates verification on the basis of previously submitted data.

The manufacturer must production verify from one model year to the next. In some instances, a manufacturer may verify new models based on data submitted during previous model years. The manufacturer need not verify configurations at any particular point in a model year. The requirement is only that he verify a configuration prior to distribution in commerce. The inherent flexibility in the scheme of categorization in many instances will allow a manufacturer to either verify a configuration that he may not produce until late in a model year based on representation or else wait until actual production of that configuration to verify it.

If a manufacturer fails to properly verify and a configuration is found to be in non-conformity with the regulations, the Administrator may issue an order requiring the manufacturer to cease the distribution in commerce of trucks of that configuration. The Administrator may provide the manufacturer the opportunity for a hearing prior to issuance of such an order if the decision to issue it was based on information which invokes no substantial question of fact.

Production verification provides EPA with confidence that production models will conform to the standards and limits the possibility that non-conforming vehicles will be distributed in commerce because initial testing is performed on

first production models. Because the possibility still exists that subsequent models may not conform, assembly line vehicle testing is made a part of this enforcement strategy in order to determines whether production vehicles continue to conform to the standard.

C. *Assembly line verification.* Assembly line testing of production vehicles is a process by which vehicles as they are completed on the assembly line are tested to determine whether they conform to applicable standards.

These regulations provide for sample testing based on an audit of production line vehicles for cause (Selective Enforcement Auditing). An auditing strategy enables EPA to determine if production vehicles meet the applicable emission standards and provides a deterrent to the distribution in commerce of nonconforming products. An auditing strategy involves the testing of a representative number of production vehicles in a random fashion. Because the number of vehicles tested under an auditing strategy is nominal, the cost and effort associated with implementation of such strategy for a conforming manufacturer is only a fraction of the cost of a program involving continuous testing because fewer vehicles are involved.

The sampling strategy adopted by EPA does not attempt to impose a quality control or quality assurance scheme upon a manufacturer but merely audits the conformity of his products and thus provides a deterrent to the distribution in commerce of nonconforming products.

D. *Selective enforcement auditing.* Selective enforcement auditing (SEA) is the term used in this regulation to describe the testing pursuant to an Administrative request, in accordance with the proposed test procedure, of a statistical sample of production vehicles from a particular specified vehicle configuration selected from a particular assembly plant in order to determine whether production vehicles conform to the regulations and to provide the basis for further action in the case of non-conformity. Vehicles will be selected on the basis of specific information, such as, but not limited to, marginal noise emission performance exhibited during production verification testing, a high failure rate of vehicles in use, or large volume of sales.

Testing is initiated by a test request which will be issued by the Assistant Administrator for Enforcement and General Council or his authorized representative to the manufacturer. A test request is confined to a single vehicle configuration so that non-compliance can be associated with a particular vehicle type, and initial testing may be kept to a minimum. This test request will require the manufacturer to test a sample of vehicles of the specified configuration produced at a specified plant. An alternative configuration may be designated in the test request in the event vehicles of the first configuration are not available.

Upon receipt of the test request the manufacturer will randomly select the sample from the first batch of vehicles of the specified configuration that is scheduled for production; however, the Administrator may designate specific vehicles for testing. (The purpose of the random selection is to ensure that a representative sample is drawn.) A batch is the collection as designated in the test request. As a guideline, the Administrator will normally select the number of vehicles produced during a shift as a batch. A batch defined in this manner will allow the Administrator to select batch sizes small enough to keep the number of vehicles to be tested at a reasonable number and yet be large enough to enable EPA to eventually draw statistically valid conclusions about the noise emission performance of all vehicles of that configuration manufactured by the manufacturer at that plant.

One important factor which will influence the decision of the Administrator to issue a test request to a manufacturer is whether the manufacturer is conducting noise emission testing of production vehicles on his own cognizance using a sampling scheme better than, similar to, or identical with the one proposed in these regulations. If a manufacturer can provide evidence that his vehicles are meeting standards based on tests and sampling methods acceptable to EPA, issuance of a test request may not be necessary.

The prescribed tests are described in the *EPA Medium and Heavy Duty Truck Project Report, section 9.*

The basis for determining the proper sample size will be an adaptation of Military Standard 105D, Sampling Procedures and Tables for Inspection by Attributes. Military Standard 105D is a collection of sampling plans designed to be used in determining the acceptability of a batch of items for which one or more inspection criteria have been established. As applied to vehicle noise emissions, the items being inspected are vehicles and the inspection criterion is the noise emission standard.

Under inspection by attributes, items are inspected or tested to determine whether they meet the prescribed specification. The basic decision criteria is the number of products whose parameters meet specification rather than the average value of some parameter.

The particular type of inspection plan which has been adopted for selective emission testing of vehicles is known as multiple sampling. Multiple sampling differs from single sampling in that small consecutive test samples are drawn from a batch rather than one large sample being drawn from a batch.

Multiple sampling offers the advantage of keeping the number of vehicles tested to a minimum when the majority of vehicles are meeting the standards.

The sampling plans in Military Standard 105D are arranged according to the size of the batch from which a sample is to be drawn. Each plan specifies the sample size and acceptance and rejection number for various acceptance quality levels (AQL). As applied to vehicle noise emissions, the AQL is the maximum percentage of failing vehicles that for purposes of sampling inspection can be considered satisfactory, where a vehicle is considered a failure if it exceeds the noise emission standard. An acceptable quality level (AQL) of 6.5 percent will be established. This value was chosen to take into account some test variability. The number of failing vehicles in a sample is compared to the acceptance and rejection numbers for the appropriate sampling plan. If the number of failures is less than or equal to the acceptance number, then there is a high probability that the percentage of non-complying vehicles in the batch is less than the AQL. On the other hand, if the number of failing vehicles in the sample is greater than or equal to the rejection number, then there is a high probability that the percentage of noncomplying vehicles in the batch is greater than the AQL.

In the first case, the batch is said to be accepted while in the second case it is said to be rejected. Because the sampling strategy involves a multiple sampling plan in some instances the number of failures in a test sample may not allow acceptance or rejection of a batch so that continued testing may be required until a decision can be made to either accept or reject a batch.

Regardless of whether a batch is accepted or rejected, failed vehicles would have to be repaired and/or adjusted and pass a retest before they can be distributed in commerce.

The proposed regulations establish two types of inspection criteria in accordance with Military Standard 105D. They are known as normal and tightened inspection. Normal inspection is used for determining the acceptability of the first batch or the first two batches where the first batch was accepted and assumes that the quality of a batch, that is the percentage of non-complying vehicles, is less than or equal to the AQL. If the first batch is rejected, or the second batch is rejected where the first batch was accepted, then this assumption was incorrect and tightened inspection is instituted, which assumes that the submitted quality exceeds the AQL. Under tightened inspection, the producer's risk, that is the statistical probability of a good batch being rejected, is slightly increased, whereas the consumer's risk, the statistical probability of a bad batch being accepted, is slightly decreased. This is accomplished by keeping the sample size fixed while reducing the acceptance number (i.e., number of passing vehicles).

In order to reduce the risk of accepting a bad batch and ending testing that is associated with simply testing one batch of vehicles pursuant to a test request, after the first batch tested is accepted the manufacturer must test a second batch using normal inspection. However, where a first batch is rejected, tightened inspection is instituted immediately. Similarly tightened inspection is instituted when the second batch is rejected after acceptance of the first batch.

If the first two batches inspected in response to a test request are accepted, then the manufacturer will not be required, at that time to do any further sampling and testing of that configuration pursuant to the initial test request. Rejection of the first or the second batch however, would result in a number of subsequent actions. First, the manufacturer must begin to inspect consecutive batches of the affected configuration using tightened inspect to determine whether each batch can be accepted. If a sufficient number of consecutive batches are rejected, then the manufacturer may be required to institute 100 percent testing for all vehicles of that configuration produced at that plant. In this alternative the Administrator may, based on criteria stated in the regulations, issue an order requiring the manufacturer to cease distribution of the affected configuration into commerce. The Administrator may not provide a manufacturer the opportunity for a hearing prior to issuance of such an order if the decision to issue it was based on information which invokes no substantial question of fact.

E. *Time limitations.* Since the number of vehicles tested in response to a test order may vary considerably, a fixed time limit cannot be placed on completing all testing. The proposed approach is to establish the time limit on a per vehicle basis, taking transportation requirements, if any, into consideration. The manufacturer would be allowed a reasonable amount of time for transport of vehicles to a test facility if one were not available at the assembly plant.

F. *Recall.* Section 11(d)(1) of the Act provides that:

> Whenever any person is in violation of section 10(a) of this Act, the Administrator may issue an order specifying such relief as he determines is necessary to protect the public health and welfare.

This provision of the Act is intended to grant to the Administrator discretionary authority to fashion civil sanctions to supplement the criminal penalties of section 11(a). If vehicles, which were not designed, built, and equipped so as to conform with these regulations, were distributed in commerce, such acts would be a violation of section 10(a) and remedy of such nonconformity would be appropriate. Remedy of the affected vehicles shall be carried out pursuant to a recall order.

A recall order could be triggered by at least three events. The first act which could cause a recall order to be issued would be the failure of a manufacturer to properly production verify a configuration as required by the regulations. Such an order would not be issued unless the vehicles of the unverified configuration actually exceeds the applicable noise emission standard. This decision to recall may be based upon a technical analysis of the configuration and other appropriate information including test data. The manufacturer would be provided with the opportunity for an administrative hearing to challenge the Administrator's decision prior to the issuance of the order except that in cases where the decision was based upon data and information containing no disputable issues, no hearing would be allowed.

The second possibility under which a recall order may be issued would occur when a configuration fails an audit test conducted under these regulations. The results of the testing would serve as the basis for the decision to issue the order. Again, the opportunity for a hearing would be discretionary with the Administrator, and would depend upon whether any issues are raised which include a substantial question of fact.

A third possibility under which a recall order may be issued is when properly maintained and operated vehicles fail to conform to Federal standards in use. This possibility is discussed below under the section dealing with in-use compliance.

G. *Labeling.* These regulations require that vehicles subject to them shall be labeled to provide notice that the vehicle conforms to these regulations. The label shall contain a notice of tampering prohibitions.

H. *Right of entry and record keeping.* Because of the inevitable conflict of interest which results from any system where a significant part of the regulatory activity is controlled by those being regulated, it is essential that EPA personnel have free access to all aspects of the system in order to determine whether the requirements of the regulations are being followed and if conforming vehicles are being introduced into commerce. Such access includes all facets of the testing program required by the regulations, all records, reports, and test results which must be maintained, and all facilities (production, test and storage) which are connected with the manufacture of the vehicles used for testing. These regulations spell out exactly what records and other documents, concerning testing of production vehicles, must be retained, and for how long. The procedures by which EPA testing and inspection authorized in sections 6 and 13 of the Noise Act will be exercised are also specified.

These regulations also provide for a sanction against any manufacturer who refuses to allow EPA personnel entry to his facility to conduct activities authorized by the regulations. This sanction is in the form of an order issued by the Administrator to cease distribution into commerce of vehicles being manufactured at that facility of the specified configuration. The Administrator may provide a manufacturer the opportunity for a hearing prior to the issuance of such an order if the decision to issue it was based on information which invokes no substantial question of fact.

Many of the vehicles to which these regulations apply will be manufactured and tested in facilities located outside the United States. These regulations make clear that all testing and production facilities, wherever located, are subject to the same recordkeeping and inspection requirements. Since these requirements are necessary to ensure the integrity of the testing process, and the conformity of production vehicles to the regulations, tests which are not subject to them cannot be considered reliable, nor can there be assurance that production facilities not subject to them are producing vehicles that conform to the regulations. In addition, to fail to apply these requirements to facilities located overseas would discriminate unjustly against domestic manufacturers in favor of their foreign competition.

These regulations will apply even to facilities located in jurisdictions where local law forbids the kind of summary inspections they allow. Though it is well established that American courts will not order a person to disclose documents or other information located in a foreign jurisdiction that forbids such disclosure, the reason behind that rule is to avoid a conflict of laws, and is not applicable here. EPA will not attempt to make any inspections which it has been informed that local law forbids. However, if local law makes it impossible to do what is necessary to ensure the accuracy of data generated at a facility of the conformity to design requirements of vehicles produced at it, no informed judgment that a vehicle complies with the regulations can properly be made. It is the responsibility of the manufacturer to locate his testing and production facilities in jurisdictions where this situation will not arise.

I. *Exemptions.* The proposed regulations also outline the procedures by which EPA will administer the granting of exemptions from the prohibitions of the Act to various product manufacturers, pursuant to section 10(b). The substantive scope of the exemption provisions of sections 10(b)(1) and (2) are defined and procedures whereby exemptions may be requested are set forth. Exemptions will be granted for testing and national security reasons only. Export exemptions will be automatically effective without request, upon the proper labeling of the products involved. Testing exemptions must be justified in writing by a sufficient demonstration of appropriateness, necessity, reasonableness, and control. Requests for national security exemptions must be endorsed by an agency of the Federal Government charged with the responsibility for national defense. This would preclude the granting of exemptions for products used for public welfare, such as municipal fire trucks.

J. *In-use compliance.* The manufacturer is required to design, build, and equip vehicles subject to these regulations so that they do not exceed the prescribed noise emission standards during their actual life, provided they are properly maintained and operated. In-use compliance provisions are included in these regulations to ensure that this obligation is satisfied. These provisions include a requirement that the manufacturer provide a warranty to purchasers (required by section 6(d)), recall nonconforming vehicles if the Administrator so orders (under section 11(d)),

assist the Administrator in fully defining those acts which constitute tampering (under section 10(a)(2)(A), and provide purchasers with instructions specifying the maintenance, use, and repair required to assure conformity with noise emission regulations during the life of the product (authorized by section 6(c)(1)).

Section 6(d)(1) of the Act requires the manufacturer to warrant to the ultimate and subsequent purchasers that motor vehicles subject to these regulations are designed, built, and equipped so as to conform at the time of sale with the regulations. The regulations require that the manufacturer furnish this time-of-sale warranty to the ultimate purchaser in a prescribed written form. The regulations also provide for EPA review of the written warranty and related information furnished to purchasers, dealers, zone representatives, etc., in order that the Agency can determine whether the manufacturer's warranty policy is consistent with the intent of the Act.

The recall regulations make it clear that the manufacturer may be required to remedy vehicles of a particular configuration if it is determined that properly maintained and operated vehicles of this configuration do not conform to noise emission regulations when in actual use. State and local jurisdictions are encouraged to assist in the Federal recall program, primarily by conducting surveillance in the field. Procedural regulations for dealing with contested recall orders, in accordance with section 11(d)(2) of the Act, will be promulgated in the future if the Administrator determines such regulations are desirable.

The tampering regulations require the manufacturer to furnish the Agency with a comprehensive list of all noise control devices and elements of design for each configuration or motor vehicle. The manufacturer is also required to furnish a proposed "tampering list" derived from the comprehensive list. This list will focus on those prohibited acts which are most likely to be done on vehicles in use and if done, are likely to have a serious detrimental impact on noise emissions. The Federal tampering prohibition and the tampering list, after EPA review, must be provided in written form to the ultimate purchaser.

The regulation dealing with instructions for proper operation, use, and repair are intended to assure that purchasers know exactly what is required to ensure that motor vehicles will comply with standards during the life of the vehicle. These instructions must be both necessary to assure in-use compliance and reasonable in the burden placed on purchasers. A record or log book must be provided to the ultimate purchaser to assist purchasers in demonstrating proper maintenance should this be necessary at any time during the life of the product, such as for most Federal recall situations. The instructions may not contain language which tends to give the manufacturer or his dealers an unfair competitive advantage over the aftermarket parts or service industries. Finally, the regulations provide for Agency review of the instructions and related language.

K. Cost of compliance testing—1. *Production verification.* It is anticipated that the manufacturer will be able to categorize his product line and therefore minimize the amount of production verification testing required. Testing costs may be broken down as follows: (1) Test Facility Cost, $50,000 plus cost of required land (approximately one acre) and (2) two men requiring at least 15 minutes to conduct each test (labor costs and land costs will vary with the location of the manufacturer). The regulations do not require the construction of a test facility. Manufacturers may avail themselves of independent test facilities.

The cost of preparing and filing a production verification report is nominal since it involves transcribing information, including test data, which is already available to the manufacturer.

Because the test methodology is dependent upon favorable weather conditions, manufacturers attempting to production verify may be restricted or delayed because of unfavorable conditions. Manufacturers are encouraged to submit alternatives to the scheme included in this regulation, which can be accommodated within the proposed production verification procedures, preserve its intent and goal, yet take into account the logistical problems due to inclement weather conditions.

2. *Selective Enforcement Auditing.* The cost of SEA to the manufacturer will be the costs associated with performing the standard test and reporting the test results plus any transportation costs, which will vary from manufacturer to manufacturer depending upon where his plants and test facilities are located.

In many instances, the cost of the program to a manufacturer will be nominal if he has in-house quality control testing programs which use procedures and equipment similar to or identical to those proposed in these regulations.

The costs to a manufacturer producing conforming products will be nominal because of the minimal testing required resulting from the multiple sampling strategy.

Weather conditions may adversely affect the cost of compliance testing. We solicit suggestions on how these effects can be minimized.

IX. Preemption

Under subsection 6(e)(1) of the Noise Control Act, after the effective date of a regulation under section 6 of noise emissions from a new product, no State or political subdivision thereof may adopt or enforce any law or regulation which sets a limit of noise emissions from such new products, or components of such new products, which is not identical to the standard prescribed by the Federal regulation. Subsection 6(e)(2), however, provides that nothing in section 6 precludes or denies the right of any state or political subdivision thereof to establish and enforce controls on environmental noise (or one or more sources thereof) through the licensing, regulation or restriction of the use, operation or movement of any product or combination of products.

The noise controls which are reserved to state and local authority by subsection 6(e)(2) include, but are not limited to, the following:

(1) Controls on the manner of operation of products.

(2) Controls on the time in which products may be operated.

(3) Controls on the places in which products may be operated.

(4) Controls on the number of products which may be operated together.

(5) Controls on noise emissions from the property on which products are used.

(6) Controls on the licensing of products.

(7) Controls on environmental noise levels.

Federal regulations promulgated under section 6 preempt only state or local noise emission standards on new products, and only to the extent that such standards are different from the Federal standards relating to such products.

Conversely, state and local authorities are free to enact regulations on new products offered for sale which are identical to Federal regulations. The Environmental Protection Agency encourages the adoption of such regulations so that state and local authorities may aid in the enforcement of such standards.

State and local noise regulations applicable to products which are not covered by Federal regulations are in no way preempted by these regulations.

X. Future Intent

The Agency is pursuing a strategy through which major contributors to overall transportation noise will be identified and subsequently regulated. This coordinated strategy is necessary because of the multitude of different transportation equipment sources that combined constitute transportation noise.

As indicated in the EPA Identification of Major Sources of Noise Report, (39 FR 22297, June 21, 1974) the principal candidates for future regulatory efforts are known. At the time, the Agency is analyzing the alternative methods of regulating transportation equipment to determine whether regulation of individual products or categories of products is more appropriate.

The Agency is engaged in the development and acquisition of information to support further regulatory action on other transportation related noise sources. This includes but is not limited to nor necessarily in the sequence of regulatory actions which may be proposed: tires, Interstate Motor Carrier Regulation revision, mufflers, specialty equipment, automobiles, and buses.

The Agency believes that the standard here proposed represents the level of noise emission achievable by the best currently available technology. However, as technological advance occurs, new

levels may be shown to be achievable. The Agency will consider all new information and data which becomes available or is presented to it, and may subsequently revise the regulations proposed herein.

XI. Public Comment

Under section 6(c)(2) of the Noise Control Act, after publication of any proposed regulations under section 6, the Administrator shall allow interested persons an opportunity to participate in rulemaking.

The comments are important to the rulemaking process and, in particular, the following areas of comment are desirable:

1. *Level of low-speed standard.* EPA feels that the 75 dB(A) standard to go into effect in 1983 represents best available technology and is requisite to protect public health and welfare from traffic noise. In low-speed situations the 75 dB level will reduce truck noise to a level comparable with current passenger cars. Controlling trucks to 75 dB, given currently available technology, will require engine shielding for most models and hence, will cost considerably more than a standard which did not require shielding. Comment is expressly solicited on the cost and benefits of the 75 dB(A) standard.

2. *Cost of compliance and economic impact.* a. Projected costs to control truck noise at the 75 dB level are based on a limited number of prototype trucks and employ estimates that envision the use of currently available technology. The estimates are the best available at this time and are likely to be high since research and development over the next decade will probably bring down the cost of control.

b. EPA's analysis indicates that these proposed regulations will not impose burdens on smaller manufacturers and independent truck owner-operators that would result in a decreased market share. EPA will be studying these impacts in more detail during the public comment period.

c. Special attention will be paid to smaller manufacturers and to small firms that build bodies for incomplete vehicles and, hence, will likely be responsible for the required testing.

Interested persons may submit written data, views or arguments in regard to the regulations proposed herein to:

Office of Noise Abatement and Control
Docket No. ONAC 74–1
1921 Jefferson Davis Highway
Arlington, Virginia 20460

All relevant material received before the close of business on December 16, 1974 will be considered before further action is taken on this proposal. Comments will be available for public inspection during normal working hours (8 a.m. to 4:30 p.m.) at the Public Information Center, Waterside Mall, 401 M Street SW., Washington, D.C. 20460, both before and after the closing date for comments.

Final regulations, reflecting modifications as the Administrator deems appropriate after consideration of comments, will be promulgated after appropriate consideration, and as close to 6 months after publication of this proposed regulation as practicable.

This regulation is proposed under the authority of 42 U.S.C. 4905, 86 Stat. 1237.

Russell E. Train,
Administrator.

October 15, 1974.

Part 205 of Title 40 is proposed to read as follows:

PART 205—TRANSPORTATION EQUIPMENT NOISE EMISSION CONTROLS

Subpart A—General Provisions

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205.5 Exemptions.
205.5–1 Who may request an exemptions.
205.5–2 Testing exemptions.
205.5–3 Pre-varification exemptions.
205.5–4 National security exemptions.
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205.5–6 Granting of exemptions.
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Subpart B—Medium and Heavy Duty Trucks

205.50 Applicability.
205.51 Definitions.
205.52 Vehicle emission standards.
205.53 Maintenance of records: submittal of information.
205.54 Test procedures.
205.54–1 Low speed sound emission test procedures.
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205.55 Product verification.
205.55–1 General standards.
205.55–2 Production verification; compliance with standards.
205.55–3 Configuration identification.
205.55–4 Production verification report; required data.
205.55–5 Test vehicle selection.
205.55–6 Test vehicle preparation.
205.55–7 Test procedures.
205.55–8 Information to be recorded.
205.55–9 Testing by the Administrator.
205.55–10 Addition of, changes to and deviation from a vehicle configuration during the model year.
205.55–11 Recall of nonverified vehicles.
205.55–12 Production verification based on data for a previous model year.
205.55–13 Cessation of distribution.
205.56 Labeling.
205.57 Selective enforcement auditing.
205.57–1 Test request.
205.57–2 Testing by the Administrator.
205.57–3 Test vehicle sample selection.
205.57–4 Test vehicle preparation.
205.57–5 Test procedures.
205.57–6 Information to be recorded.
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205.57–8 Acceptance and rejection of batches.
205.57–9 Additional testing.
205.57–10 Continued testing.
205.57–11 Cessation of distribution.
205.57–12 Prohibition on distribution in Commerce; manufacturer's remedy.
205.57–13 Recall of noncomplying vehicles.
205.58 Useful life requirements.
205.58–1 Warranty.
205.58–2 Recall for failure to conform in use.
205.58–3 Tampering.
205.58–4 Instructions for maintenance, use and repair.

Authority: Sec. 2, 5, 6, 10, 11, 13, 16, Noise Control Act of 1972 (Pub. L. 92–574, 86 Stat. 1234).

Subpart A—General Provisions

§ 205.1 General applicability.

The provisions of this subpart are applicable to all products for which regulations have been published under this part and which are manufactured after the effective date of such regulations.

§ 205.2 Definitions.

(a) As used in this subpart, all terms not defined herein shall have the meaning given them in the Act.

(1) "Act" means the Noise Control Act of 1972 (Pub. L. 92–574, 86 Stat. 1234).

(2) "Administrator" means the Administrator of the Environmental Protection Agency or his authorized representative.

(3) The "Agency" means the United States Environmental Protection Agency.

(4) "Export exemption" means an exemption from the prohibitions of section 10(a) (1), (2), (3), and (4) of the Act, granted by statute under section 10(b)(2) of the Act for the purpose of exporting regulated products.

(5) "National security exemption" means an exemption from the prohibitions of section 10(a)(1), (2), (3), and (5) of the Act, which may be granted under section 10(b)(1) of the Act for the purpose of national security.

(6) "Pre-verification exemption" means a testing exemption which is applicable to products manufactured prior to product verification and required under any section of this part, and used by a manufacturer from year to year in the ordinary course of business, for product development, production method assessment, and market promotion purposes, but in a manner not involving lease or sale.

(7) "Sound Level" means 20 times the logarithm to base 10 of the ratio of pressure of a sound to the reference pressure. The reference pressure is 20 micronewtons per square meter (2 X 10 microbar).

Note.—Unless otherwise explicitly stated, it is to be understood that the sound pressure is the effective (rms) sound pressure, per American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018.

(8) "Sound Pressure Level" means in decibels, 20 times the logarithm to the base ten of the ratio of a sound pressure to the reference sound pressure of 20 micropascals (20 micronewtons per square meter). In the absence of any modifier, the level is understood to be that of a root-mean-square pressure. The unit of any sound level is the decibel, having the unit symbol dB.

(9) "dB(A)" means the standard abbreviation for A-weighted sound level in decibels.

(10) "Highway" means the streets, roads, and public ways in any State.

(11) "Fast Meter Response" means that the fast dynamic response of the sound level meter shall be used. The fast

dynamic response shall comply with the meter dynamic characteristics in paragraph 5.3 of the American National Standard Specification for Sound Level Meters, ANSI SI.41971. This publication is available from the American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018.

(12) "Slow Meter Response" means that the slow dynamic response of the sound level meter shall be used. The slow dynamic response shall comply with the meter dynamic characteristics in paragraph 5.3 of the American National Standard Specification for Sound Level Meters, ANSI SI.4.1971. This publication is available from the American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018.

(13) "Person" means an individual, corporation, partnership, or association, and (except as provided in sections 11(e) and 12(a) of the Act includes any officer, employee, department, agency or instrumentality of the United States, a State or any political subdivision of a State.

(14) "Product" means any manufactured article or good or component thereof; except that such term does not include:

(i) Any aircraft, aircraft engine, propeller, or appliance, as such terms are defined in section 101 of the Federal Aviation Act of 1958; or

(ii) Any military weapons or equipment which are designed for combat use; any rockets or equipment which are designed for research, experimental, or developmental work to be performed by the National Aeronautics and Space Administration; or to the extent provided by regulations of the Administrator, any other machinery or equipment designed for use in experimental work done by or for the Federal Government.

(15) "Ultimate purchaser" means the first person who in good faith purchases a product for purposes other than resale.

(16) "New product" means (i) a product the equitable or legal title of which has never been transferred to an ultimate purchaser, or (ii) a product which is imported or offered for importation into the United States and which is manufactured after the effective date of a regulation under sections 6 or 8 which would have been applicable to such product had it been manufactured in the United States.

(17) "Manufacturer" means any person engaged in the manufacturing or assembling of new products, or the importing of new products for resale, or who acts for, and is controlled by any such person in connection with the distribution of such products.

(18) "Commerce" means trade, traffic, commerce, or transportation—

(i) Between a place in a State and any place outside thereof, or

(ii) Which affects trade, traffic, commerce, or transportation described in paragraph (a)(18)(i) of this section.

(19) "Distribute in commerce" means sell in, offer for sale in, or introduce or deliver for introduction into, commerce.

(20) "State" includes the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, Guam, and the Trust Territory of the Pacific Islands.

(21) "Federal agency" means an executive agency (as defined in section 105 of Title 5, United States Code) and includes the United States Postal Service.

(22) "Environmental noise" means the intensity, duration, and the character of sounds from all sources.

(23) "Testing exemption" means an exemption from the prohibitions of section 10(a) (1), (2), (3), and (5) of the Act, which may be granted under section 10(b)(1) of the Act for the purpose of research, investigations, studies, demonstrations, or training, but not including national security, where lease or sale of the exempted product is involved.

(24) "Warranty" means the warranty required by section 6(c)(1) of the Act.

(25) "Tampering" means those acts prohibited by section 10(a)(2) of the Act.

(26) "Maintenance instructions" or "instructions" means those instructions for maintenance, use, and repair, which the Administrator is authorized to require pursuant to section 6(c)(1) of the Act.

(27) "Type I Sound Level Meter" means a sound level meter which meets the Type I requirements of ANSI SI.4–1972 specification for sound level meters. This publication is available from the American National Standards Institute, Inc., 1430 Broadway, New York, New York 10018.

(28) "Transportation Equipment" means any transportation equipment for which regulations have been promulgated under this Part.

§ 205.3 Number and gender.

As used in these rules of practice, words in the singular shall be deemed to import the plural and words in the masculine gender shall be deemed to import the feminine and vice versa, as the case may require.

§ 205.4 Right of entry.

(a) In order to allow the Administrator to determine whether a manufacturer is complying with the provisions of the Act and these regulations, any manufacturer subject to regulation under this part shall admit or cause to be admitted any EPA Enforcement Officer during operating hours upon demand and upon presentation of credentials to any of the following:

(1) Any facility where any transportation equipment to be distributed into commerce is manufactured, assembled, or stored;

(2) Any facility where any tests conducted pursuant to this part or any procedures or activities connected with such tests are or were performed;

(3) Any facility where any test transportation equipment is present; and

(4) Any facility where records, reports, other documents or information required to be maintained or provided to the Administrator are located.

(b)(1) Upon admission to any facility referred to in paragraph (a) of this section, any EPA Enforcement Officer shall be allowed:

(i) To inspect and monitor test transportation equipment manufacture and assembly, selection, storage, preconditioning, noise emission testing and maintenance; and to verify correlation or calibration of test equipment;

(ii) To inspect transportation equipment prior to its distribution in commerce, and

(iii) To inspect and make copies of any records, documents, reports or information required to be maintained or provided to the Administrator under the Act, and

(iv) To inspect and photograph any part or aspect of any such transportation equipment and any component used in the assembly thereof that are reasonably related to the purpose of his entry.

(v) Any inspecting or monitoring activities conducted under this section shall be for the purpose of determining (*a*) whether required records are being properly maintained, (*b*) whether transportation equipment testing is being conducted in accordance with these regulations, (*c*) whether test transportation equipment is being manufactured or assembled, stored, selected and prepared for testing in accordance with the provisions of these regulations, and (*d*) whether transportation equipment being produced for distribution into commerce is as described in the production verification report.

(2) Any EPA Enforcement Officer shall be furnished by those in charge of a facility being inspected with such reasonable assistance as he may request to help him discharge any function listed in this paragraph. A manufacturer is required to cause those in charge of a facility operated for its benefit to furnish such reasonable assistance without charge to EPA whether or not in controls the facility.

(3) The duty to admit or cause to be admitted any EPA Enforcement Officer applies whether the facility is owned or controlled by the manufacturer or by one who acts for the manufacturer and applies both to domestic and foreign manufacturers and facilities. EPA will not attempt to make any inspections which it has been informed that foreign law forbids. However, if foreign law makes it impossible to do what is necessary to ensure the accuracy of data generated at a facility, no informed judgment that transportation equipment has been properly tested in accordance with these regulations can properly be based on that data. It is the responsibility of the manufacturer to locate its testing and manufacturing facilities in jurisdictions where this situation will not arise.

(c) For purposes of this section:

(1) "Presentation of credentials" shall mean display of the document designating a person as an EPA Enforcement Officer.

(2) Where transportation equipment or component storage areas or facilities are concerned, "operating hours" shall mean all times during which personnel

other than custodial personnel are at work in the vicinity of the area or facility and have access to it.

(3) Where facilities or areas other than those covered by paragraph (c)(2) of this section are concerned, "operating hours" shall mean all times during which transportation equipment assembly is in operation or all times during which transportation equipment testing, maintenance, and/or production or compilation of records, or any other procedure or activity related to testing which is required by these regulations, or to transportation equipment manufacture or assembly is being carried out in a facility.

(4) "Reasonable assistance" includes, but is not limited to, clerical, copying, interpretation and translation services, the making available, on request, of personnel of the facility being inspected during their working hours to inform the EPA Enforcement Officer of how the facility operates and to answer his questions, and the performance on request of noise emission tests on any transportation equipment which is being, has been, or will be used for testing. Such tests shall be nondestructive.

(d) Any entry without 24 hour prior written or oral notification to the affected manufacturer shall be authorized in writing by the Assistant Administrator for Enforcement and General Counsel.

(e) Pursuant to section 11(d)(1) of the Act, the Administrator may issue an order to the manufacturer to cease the distribution in commerce of particular transportation equipment configuration being manufactured at a particular facility if:

(1) Any EPA Enforcement Officer is denied access on the terms specified in this section to such facility or portion thereof which contains any of the following:

(i) Any transportation equipment which has been used or designated for use in conducting tests required by this part, or

(ii) Any transportation equipment which is intended for distribution into commerce, or

(iii) Any step in the construction of transportation equipment described in paragraphs (e)(1) (i) and (ii) of this section, or

(iv) Any records, documents, reports or histories required to be kept by this part; or

(2) Any EPA Enforcement Officer is denied access on the terms specified in this section to any facility where any tests required by this part or any procedures or activities connected with such tests are or were performed; or

(3) Any EPA Enforcement Officer is denied "reasonable assistance" (as defined in § 205.4(c)(4) in examining any of the items listed in paragraphs (e) (1) and (2) of this section.

(4) The sanction of issuing an order to cease the distribution in commerce of transportation equipment of a particular configuration may be imposed for the reasons in paragraphs (e) (1), (2), and (3) of this section only when the infraction is substantial.

(5) Pursuant to section 11(d)(2) of the Act, the Administrator may, as appropriate, grant to the manufacturer an opportunity for a hearing prior to the issuance of an order, under this paragraph, to cease the distribution in commerce of transportation equipment of a specified configuration. The Administrator may refuse to grant a hearing based upon his determination that the decision to issue such an order is based solely on inspection, tests or other information which invokes no substantial question of fact. Hearings granted under this paragraph shall be conducted under appropriate regulations.

(f) Pursuant to section 16(d) of the Act, any employee of a manufacturer may be compelled to personally appear before an EPA Enforcement Officer during the course of an entry upon a facility of that manufacturer conducted under this paragraph. A written request for such appearance, signed by the Assistant Administrator for Enforcement and General Counsel, shall be served on the employee. Any such employee will be entitled to be accompanied, represented, and advised by counsel. No counsel who accompanies, represents, or advises an employee compelled to appear may accompany, represent or advise any other person in the investigation.

§ 205.5 Exemptions.

§ 205.5–1 Who may request an exemption.

(a) Any manufacturer may request an exemption provided by this subpart or exempt products as provided by § 205.5–5.

§ 205.5–2 Testing exemption.

(a) Any manufacturer requesting a testing exemption must demonstrate that the proposed test program:

(1) Has a purpose which constitutes an appropriate basis for an exemption in accordance with section 10(b)(1) of the Act.

(2) Necessitates the granting of an exemption;

(3) Exhibits reasonableness in scope; and

(4) Exhibits a degree of control consonant with the purpose of the program and the Environmental Protection Agency's (hereafter EPA) montoring requirements. Paragraphs (b), (c), (d), and (e) of this section describe what constitutes a sufficient demonstration for each of the four above identified elements.

(b) With respect to the purpose of the proposed test program, an appropriate purpose is one which is consistent with one or more of the bases for exemption set forth under section 10(b)(1), namely research, investigations, studies, demonstrations, or training, but not including national security. A concise statement of purpose is a required item of information.

(c) With respect to the necessity that an exemption be granted, necessity arises from an inability to achieve the stated purpose in a practicable manner without performing a prohibited act under sections 10(a) (1), (2), (3), or (5). In appropriate circumstances time constraints may be a sufficient basis for necessity.

(d) With respect to reasonableness, a test program must exhibit a duration of reasonable length and affect a reasonable number of products. In this regard, required items of information include:

(1) An estimate of the program's duration;

(2) The absolute number of products involved; and

(3) The duration of the test:

(4) The ownership arrangement with regard to the products involved in the test;

(5) The intended final disposition of the products;

(6) The means or procedure whereby test results will be recorded.

(e) Paragraph (a) of this section applies irrespective of the product's place of manufacture.

§ 205.5–3 Pre-verification exemptions.

Section 205.5–2 does not apply for pre-verification products. In such cases, a request for exemption is necessary; however, the only information required is a statement setting forth the general nature of the pre-verification products program, the number of products involved and a demonstration that adequate record keeping procedures for control purposes will be employed.

§ 205.5–4 National security exemptions.

A manufacturer requesting a national security exemption must state the purpose for which the exemption is required and the request must be endorsed by an agency of the Federal government charged with responsibility for national defense.

§ 205.5–5 Export exemptions.

(a) A new product intended solely for export, and so labeled or marked on the outside of the container and on the product itself shall be exempt from the prohibitions of section 10(a) (1), (2), (3), and (4) of the Act.

(b) No request for an export exemption is required.

(c) It is a condition of any export exemption under section 10(b)(2) that such exemption shall be void ab initio with respect to each new product intended solely for export which is distributed in commerce for use in any state.

(d) Any manufacturer or person subject to the liabilities of section 11(a) with respect to any product, originally intended for export, but distributed in commerce for use in any state, may be excluded from the application of section 11(a) with respect to such product based upon a showing that such manufacturer;

(1) Had no knowledge of such product being distributed in commerce for use in any state; and

(2) Made reasonable efforts to ensure that such product would not be distributed in commerce for use in any state. Such reasonable efforts would include investigation of prior dealings, contract provisions, etc.

§ 205.5–6 Granting of exemptions.

(a) If upon completion of the review of an exemption request, the granting of an exemption is deemed appropriate, a memorandum of exemption will be prepared and submitted to the manufacturer requesting the exemption. The memorandum will set forth the basis for the exemption, its scope, and such terms and conditions as are deemed necessary to protect the public health and welfare. Such terms and conditions will generally include, but are not limited to, agreements by the applicant to conduct the exempt activity in the manner described to EPA, create and maintain adequate records accessible to EPA at reasonable times, employ labels for the exempt products setting forth the nature of the exemption, take appropriate measures to assure that the terms of the exemption are met, and advise EPA of the termination of the activity and the ultimate disposition of the products. EPA may limit the scope of any exemption by placing restrictions on time, location and duration. EPA may also withdraw the exemption at any time based upon information that the public health and welfare is being endangered.

(b) Any exemption granted pursuant to paragraph (a) of this section shall be deemed to cover any subject product only to the extent that the specified terms and conditions are complied with. A breach of any term or condition shall cause the exemption to be void ab initio with respect to any product. Consequently, the distribution in commerce for use of any subject product other than in strict conformity with all terms and conditions of this exemption shall constitute a violation of section 10(a) (1) and (3) of the Act, and shall render the manufacturer to whom the exemption is granted, and any other person to whom the provisions of section 10 are applicable, liable to suit under sections 11 and 12 of the Act.

§ 205.5–7 Submission of exemption requests.

Requests for exemption or further information concerning exemptions and/or the exemption request review procedure should be addressed to:

Director, Mobile Source Enforcement Division (EG–340)
Environmental Protection Agency
401 M Street, SW, Room 3220J
Washington, D.C. 20460

Subpart B—Medium and Heavy Duty Trucks

§ 205.50 Applicability.

(a) The provisions of this subpart apply to any vehicle which has a gross vehicle weight rating (GVWR) in excess of 10,000 pounds, which has been designed for the transportation of property on a highway or street and which meets the definition of the term "new product" in the Act.

(b) The provisions of the subpart do not apply to highway, city, and school buses (as identified in the EPA report Identifying Products as Major Sources of Noise, 39 FR 22297–22299) or to special purpose equipment which may be located on or operated from vehicles. Tests performed on vehicles containing such equipment may be carried out with the special purpose equipment in non-operating condition. For purposes of this regulation special purpose equipment includes but is not limited to, construction equipment, snow plows, garbage compactors and refrigeration equipment.

§ 205.51 Definitions.

(a) As used in this subpart, all terms not defined herein shall have the meaning given them in the Act or in other subparts of this part.

(1) "Acceptable Quality Level" means the maximum percentage of failing vehicles that, for purposes of sampling inspection, the Administrator considers tolerable.

(2) "Acceptance of a batch" means that the number of non-complying vehicles in the batch sample is less than or equal to the acceptance number as determined by the appropriate sampling plan.

(3) "Batch" means the collection of successively produced vehicles of the same configuration, as designated by the Administrator in a test request, from which a batch sample is to be randomly drawn.

(4) "Batch size" means the number as designated by the Administrator in the test request of vehicles of the same configuration in a batch.

(5) "Batch sample" means the collection of vehicles of the same configuration which are randomly drawn from a batch and from which test samples are randomly drawn.

(6) "Batch sample size" means the number of vehicles of the same configuration in a batch sample.

(7) "Cab over axle" or "cab over engine" means the cab which contains the operator/passenger compartment is directly above the engine and front axle and the entire cab can be tilted forward to permit access to the engine compartment.

(8 "Category" means a group of vehicle configurations which are identical in all material aspects with respect to the parameters listed in section § 205.55–2.

(9) "Configuration" means the basic classification unit of a manufacturer's product line and is comprised of all vehicle designs, models or series which are identical in all material aspects with respect to the parameters listed in § 205.55–3.

(10) "Defeat device" means a sensor device which may adversely affect noise emission control under conditions or during operations likely to occur in actual vehicle use.

(11) "Designed for Transportation of Property on a street or highway" means that the vehicle:

(i) Is self propelled and is capable of transporting any material or fixed apparatus, or is capable of drawing a trailer or semi-trailer;

(ii) Is capable of maintaining a maximum cruising speed of 25 mph over level, paved surface;

(iii) Is equipped or can readily be equipped with features customarily associated with practical street or highway use, such features including but not being limited to: a reverse gear and a differential, and a fifth wheel, cargo platform or cargo enclosure; and

(iv) Does not exhibit features which render its use on a street or highway impractical, or highly unlikely, such features including, but not being limited to, tracked road means, an inordinate size, or features ordinarily associated with combat or tactical vehicles.

(12) "Exhaust System" means the system comprised of a combination of components which provides for enclosed flow of exhaust gas from engine exhaust part to the atmosphere.

(13) "Gross Combination Weight Rate Rating" (GCWR) means the value specified by the manufacturer as the loaded weight of a combination weight.

(14) "Gross Vehicle Weight Rating" (GVWR) means the value specified by the manufacturer as the loaded weight of a single vehicle.

(15) "Inspection Criteria" means the rejection and acceptance numbers associated with a particular sampling plan.

(16) "Model year" means the manufacturer's annual product period (as determined by the Administrator) which includes January 1 of such calendar year: *Provided*, That if the manufacturer has no annual production period, the term "model year" shall mean the calendar year.

(17) "Model" means any segment of a manufacturer's product line which he so determines to designate.

(18) "Noise Control System" includes any vehicle part, component or system which controls or causes the reduction of noise emitted from a vehicle.

(19) "Noise emission test" means a test conducted pursuant to the measurement methodology specified in this subpart.

(20) "Normal inspection" means using normal inspection criteria (Appendix I, Table II) during inspection of the first batch and the second batch where the first batch is accepted.

(21) "Production verification vehicle" means any vehicle selected for testing, tested or verified pursuant to the production verification requirements of this subpart.

(22) "Rejection of a batch" means the number of non-complying vehicles in the batch sample is less than or equal to the acceptance number as determined by the appropriate sampling plan.

(23) "Shift" means the regular production work period for one group of workers.

(24) "Test sample" means the collection of vehicles from the same configuration which are randomly drawn from the batch sample and which will receive noise emissions tests.

(25) "Test sample size" means the number of vehicles of the same configuration in a test sample.

(26) "Test Vehicle" means a vehicle in a test sample or a production verification vehicle.

(27) "Tightened inspection" means using tightened inspection criteria (Appendix I, Table III) during inspection of all batches subsequent to rejection of the first batch or second inspected batch.

(28) "Vehicle" means any motor vehicle, machine or tractor propelled by mechanical power, with a gross vehicle weight rating in excess of 10,000 pounds, designed for transportation of property on a street or highway, and includes a closed operator compartment.

§ 205.52 Vehicle emission standards.

(a) *Low Speed Sound Emission Standard.* Vehicles manufactured during the following years shall be designed, built and equipped so that, if properly maintained, operated and repaired, they will not, at any time during the life of the vehicle, produce sound emissions in excess of the levels indicated, when tested and evaluated as prescribed in this subpart:

(1) Sound emissions for 1977 through 1980 model year vehicles shall not exceed 83 dB(A);

(2) Sound emissions for 1981 through 1982 model year vehicles shall not exceed 80 dB(A);

(3) Sound emissions for 1983 and subsequent model year vehicles shall not exceed 75 dB(A).

(b) The standards set forth in paragraph (a) of this section refer to the sound emissions as measured in accordance with the procedures prescribed in § 205.54–1.

(c) Every manufacturer of a new motor vehicle subject to the standards prescribed in this paragraph shall, prior to taking any of the actions specified in section 10(a)(1) of the Act, comply with the other provisions of this subpart or Subpart A, as applicable.

§ 205.53 Maintenance of records: submittal of information.

(a) The manufacturer of any new vehicle subject to any of the standards or procedures prescribed in this subpart shall establish, maintain, and retain the following adequately organized and indexed records:

(1) *General records.* (i) Identification and description of all vehicles for which testing is required under this subpart.

(ii) A comprehensive list of all noise control devices and elements of design which are installed on or incorporated in each vehicle.

(iii) A description of all procedures used to test each such vehicle.

(iv) A properly filed production verification report, following the prescribed format prescribed by the U.S. EPA for the appropriate model year, fulfills each of the requirements with respect to this section.

(2) *Individual records.* (i) A complete record of all noise emission tests performed pursuant to these regulations (except tests performed by EPA directly), including all individual worksheets and/or other documentation relating to each such test, or exact copies thereof.

(ii) A record and description of all maintenance and other servicing performed, giving the date and time of the maintenance or service, the reason for it, the person authorizing it, and the names of supervisory personnel responsible for the conduct of the maintenance or service.

(iii) A record and description of each test performed to diagnose engine or noise emission control system performance, giving the data and time of the test, the reason for it, the person authorizing it, and the names of supervisory personnel responsible for the conduct of the test.

(iv) The dates and times that the vehicle was idle in storage, and in transit.

(v) A brief description of any significant events affecting the vehicle during any time in the period covered by the history not described by an entry under one of the previous headings including such extraordinary events as vehicle accidents.

(3)(i) All records required to be maintained under this part with respect to vehicle configurations shall be retained by the manufacturer for a period of three (3) years from Production Verification of that vehicle configuration. Records may be retained as hard copy or reduced to microfilm, punch cards, etc., depending on the record retention procedures of the manufacturer: *Provided*, That in every case all the information contained in the hard copy shall be retained.

(ii) The manufacturer (of any new vehicle subject to any of the standards prescribed in this part) shall submit to the Administrator at the time of issuance by the manufacturer copies of all instructions or explanations regarding the use, repair, adjustment, maintenance, or testing of such vehicle relevant to the control of noise emissions, including any lists identifying or defining any element of design or device incorporated into vehicles in compliance with the Act, issued by the manufacturer for use by other manufacturers, assembly plants, distributors, and dealers: *Provided*, That any material not translated into the English language need not be submitted unless specifically requested by the Administrator.

(c) The manufacturer shall, pursuant to a request made by the Administrator, submit to the Administrator the following information with regard to new vehicle production:

(1) Number of vehicles, by configuration, scheduled for production for the time period designated in the request.

(2) Number of vehicles, by configuration, produced during the time period designated in the request which are complete for distribution in commerce.

(d) Nothing in this section shall limit the Administrator's discretion to require the manufacturer to retain records or submit information not specifically required by this section.

§ 205.54 Test procedures.

The procedures described in this and subsequent sections will be the test program to determine the conformity of vehicles with the standards set forth in § 205.52.

§ 205.54–1 Low speed sound emission test procedures.

(a) *Instrumentation.* The following instrumentation shall be used, where applicable.

(1) A sound level meter which meets the Type 1 requirements of ANSI SI.4–1971, Specification for Sound Level Meters or a sound level meter may be used with a magnetic tape recorder and/or a graphic level recorder or indicating meter, providing the system meets the requirements of § 54–3.

(2) A sound level calibrator. The calibrator shall produce a sound pressure level, at the microphone diaphragm, that is known to within an accuracy of ±0.5 dB. The calibrator shall be checked annually to verify that its output has not changed.

(3) An engine-speed tachometer which is accurate within ±2 percent of meter reading.

(4) An anemometer or other device for measurement of ambient wind speed accurate within ±10 percent.

(5) A thermometer for measurement of ambient temperature accurate within ±1 C.

(6) A barometer for measurement of ambient pressure accurate within ±1 percent.

(b) *Test Site.* (1) The test site shall consist of a level open space free of large reflecting surfaces, such as parked vehicles, signboards, buildings, or hillsides, located within 100 ft (30 m) of either the vehicle path or the microphone. See Fig. 205.1.

(2) The microphone shall be located 50 ft (15 m) from the centerline of the vehicle path and 4 ft (1.2 m) above the ground plane. The normal to the vehicle path form the microphone shall establish the microphone on the vehicle path.

(3) An acceleration point shall be established on the vehicle path 50 ft (15 m) before the microphone point.

(4) An end point shall be established on the vehicle path 100 ft (30 m) from the acceleration point and 50 ft (15 m) from the microphone point.

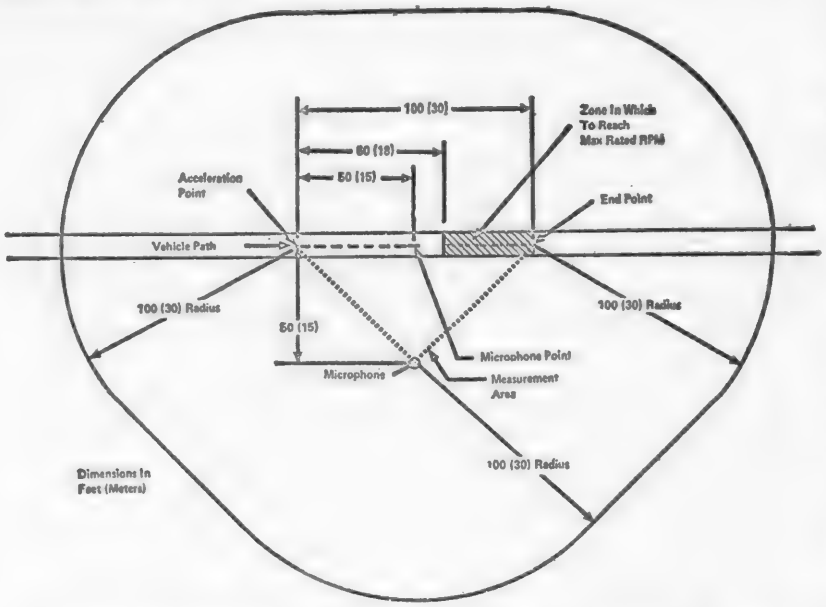
(5) The end zone is the last 40 ft (12 m) of vehicle prior to the end point.

(6) The measurement area shall be the triangular paved (concrete or sealed asphalt) area formed by the acceleration point, the end point, and the microphone location.

(7) The reference point on the vehicle, to indicate when the vehicle is at any of the points on the vehicle path, shall be the front of the vehicle except as follows:

(i) If the horizontal distance from the front of the vehicle to the exhaust outlet is more than 200 in (5080 mm), tests shall be run using both the front and rear of the vehicle as reference points.

(ii) If the engine is located rearward to the center of the chassis, the rear of the vehicle shall be used as the reference point.



(8) During measurement, the surface of the ground within the measurement area shall be free from powdery snow, grass, loose soil, and ashes.

(9) Because bystanders have an appreciable influence on meter response when they are in the vicinity of the vehicle or microphone, not more than one person, other than the observer reading the meter, shall be within 50 ft (15 m) of the vehicle path or instrument, and that person shall be directly behind the observer reading the meter, on a line through the microphone and the observer.

(10) The ambient sound level (including wind effects) coming from sources other than the vehicle being measured shall be at least 10dB(A) lower than the level of the tested vehicle.

(11) The vehicle path shall be relatively smooth, dry concrete or asphalt, free of extraneous material such as gravel.

(c) *Procedure*—(1) *Vehicle operation.* Full throttle acceleration and closed throttle deceleration tests are to be used. A beginning engine speed and proper gear ratio must be determined for use during measurements.

(i) Select the highest rear axle and/or transmission gear ("highest gear" is used in the usual sense; it is synonymous to the lowest numerical ratio) and an initial vehicle speed such that at wideopen throttle the vehicle will accelerate from the acceleration point:

(*a*) Starting at no more than two-thirds (66 percent) of maximum rated or of governed engine speed.

(*b*) Reaching maximum rated or governed engine speed within the end zone.

(*c*) Without exceeding 35 mph (56 m/h) before reaching the end point.

(*d*) Should maximum rated or governed rpm be attained before reaching the end zone, decrease the approach rpm in 100 rpm increments until maximum rated or governed rpm is attained within the end zone.

(2) Should maximum rated or governed rpm not be attained until beyond the end zone, select the next lower gear until maximum rated or governed rpm is attained within the end zone.

(3) Should the lowest gear still result in reaching maximum rated or governed rpm beyond the permissible end zone, unload the vehicle and/or increase the approach rpm in 100 rpm increments until the maximum rated or governed rpm is reached within the end zone.

(ii) For the acceleration test, approach the acceleration point using the engine speed and gear ratio selected in paragraph (c)(1)(i) of this section and at the acceleration point rapidly establish wide-open throttle. The vehicle reference shall be as indicated in paragraph (b)(7) of this section. Acceleration shall continue until maximum rated or governed engine speed is reached.

(iii) Wheel slip which affects maximum sound level must be avoided.

(iv) For the deceleration test, approach the microphone point at maximum rated or governed engine speed in the gear selected for the acceleration test. At the microphone point, close the throttle and allow the vehicle to decelerate to one-half of maximum rated or of governed engine speed. The vehicle reference shall be as indicated in paragraph (b)(7) of this section. If the vehicle is equipped with an exhaust brake, this deceleration test is to be repeated with the brake full on immediately following closing of the throttle.

(2) *Measurements.* (i) The meter shall be set for "fast" response and the A-weighted network.

(ii) The meter shall be observed during the period while the vehicle is accelerating or decelerating. The applicable reading shall be the highest sound level obtained for the run. The observer is cautioned to rerun the test if unrelated peaks should occur due to extraneous ambient noises. Readings shall be taken on both sides of the vehicle.

(iii) The calculated sound level for each side of the vehicle shall be the average of the two highest readings which are within 2 dB of each other.

(d) *General Requirements.* (1) Measurements shall be made only when wind velocity is below 12 mph (19 km/hr).

(2) Proper usage of all test instrumentation is essential to obtain valid measurements. Operating manuals or other literature furnished by the instrument manufacturer shall be referred to for both recommended operation of the instrument and precautions to be observed.

Specific items to be considered are:

(i) The effects of ambient weather conditions on the performance of the instruments (for example, temperature humidity, and barometric pressure).

(ii) Proper signal levels, terminating impedances, and cable lengths on multi-instrument measurement systems.

(iii) Proper acoustical calibration procedure, to include the influence of expansion cables, etc. Field calibration shall be made immediately before and after each test sequence. Internal calibration means is acceptable for field use, provided that external calibration is accomplished immediately before or after field use.

(3) A complete calibration of the instrumentation over the entire frequency range of interest shall be performed at least annually using methodology of sufficient precision and accuracy to determine compliance with the standards cited in American National Standard S1.4–1971 "Specifications for Sound Level Meters" for a Type 1 instrument over the frequency range 50 Hz–1–kHz.

§ 205.54–2 Sound data acquisition system.

(a) *Performance Requirements*—(1) *System frequency response.* It is required that the overall steady-state frequency response of the data acquisition system shall be within the tolerances prescribed in Table 205.1. The tolerances in Table 205.1 are applicable to either flat or A-weighted response.

(2) *Detector response.* To ensure that a (true) rms indication is provided, the difference between the level indicated for a 1000 Hz sinusoidal signal equivalent to a sound level of 86 dB (rms) and the level indicated for an octave band of random noise of equal energy as the sinusoidal signal centered at 1000 Hz shall be no greater than 0.5 dB. A true rms voltmeter shall be used to determine equivalence of two input signals.

(3) *Indicating meter.* If an indicating meter is used to obtain sound levels or band pressure levels, it must meet the requirements of paragraph (a)(2) and (a)(6)(ii) of this section.

(i) The scale shall be graduated in 1 dB steps. No scale indication shall be more than 0.2 dB different from the true value of the signal when an input signal equivalent to 86 dB sound level indicates correctly.

(ii) Maximum indication for an input signal of 4000 Hz tone burst of 0.2 sec duration shall be within the range of −2 to 0 dB with respect to the steady-state indication for a 1000 Hz tone equivalent to 86 dB sound level.

(4) *Microphone.* If a microphone is used which has not been provided as a component of a precision sound level meter, it must be determined to meet the microphone characteristics described in IEC Publication 179, Precision Sound Level Meters.

(5) *Magnetic tape recorders.* No requirements are described in this document pertaining to tape recorders, except for frequency response. Generally, recorders of adequate quality to provide the frequency response performance required will also meet other minimum requirements for distortion, signal-to-noise ratio, etc.

TABLE 205.1.—*System response data*

Frequency, Hz	A-weighted response re 1000 Hz, dB	Tolerance [a], dB	
31.5	−39.4	+2.0	−2.0
40.0	−34.6	+2.0	−2.0
50.0	−30.2	+2.0	−2.0
63.0	−26.2	+2.0	−2.0
80.0	−22.5	+2.0	−2.0
100.0	−19.1	+1.0	−1.0
125.0	−16.1	+1.0	−1.0
160.0	−13.4	+1.0	−1.0
200.0	−10.9	+1.0	−1.0
250.0	−8.6	+1.0	−1.0
315.0	−6.6	+1.0	−1.0
400.0	−4.8	+1.0	−1.0
500.0	−3.2	+1.0	−1.0
630.0	−1.9	+1.0	−1.0
800.0	−0.8	+1.0	−1.0
1,000.0	0	+1.0	−1.0
1,250.0	0.6	+1.0	−1.0
1,600.0	1.0	+1.0	−1.0
2,000.0	1.2	+1.0	−1.0
2,500.0	1.3	+1.0	−1.0
3,150.0	1.2	+1.0	−1.0
4,000.0	1.0	+1.0	−1.0
5,000.0	0.5	+1.5	−1.5
6,300.0	−0.1	+1.5	−2.0
8,000.0	−1.1	+1.5	−3.0
10,000.0	−2.5	+2.0	−4.0
12,500.0	−4.3	+3.0	−6.0

(6) *Graphic level recorder dynamic response.* When using a graphic level recorder, it is necessary to select pen response settings such that the readings obtained are statistically equivalent to those obtained by directly reading a meter which meets the "fast" dynamic requirement of a precision sound level meter indicating meter system for the range of vehicles to be tested. To ensure statistical equivalence, at least 30 comparative observations of real test data shall be made and the average of the absolute value of the differences observed shall be less than 0.5 dB. The settings described in paragraph (a)(6) of this section likely assure appropriate dynamic response; however, different setting may be selected on the basis of the above requirement.

(i) Use a pen writing speed of nominally 60–100 dB/sec. If adjustable, low frequency response should be limited to about 20 Hz.

(ii) Indicated overshoot for a suddenly applied 1000 Hz sinusoidal signal equivalent to 86 dB sound level shall be no more than 1.1 dB and no less than 0.1 dB.

(b) *Frequency response qualification procedure.* (1) Typical noise measurement and analysis configurations are shown in Figs. 205.2–205.4 The qualification procedure described herein duplicates these configurations, but with the microphone replaced by an electronic sine-wave oscillator. Caution should be exercised when connecting an oscillator to the input of a sound level meter to ensure, perhaps by using a restrictive voltage divider network, that the input is not overloaded (see § 205.54(c)(3)).

(2) Calibrate the oscillator to be used by measuring its output relative to the voltage which is equivalent to 86 dB sound level at each of the 27 frequencies listed in Table 205.1 using an electronic voltmeter of known calibration. Record the result in voltage level in dB re voltage corresponding to 86 dB sound level at 1000 Hz. This will describe the frequency response characteristics of the oscillator.

(3) If a graphic level recorder is to be used, connect it to the oscillator output. If the oscillator and graphic level recorder can be synchronized, slowly sweep the frequency over the range of 31.5–12,500 Hz, recording the oscillator output. If they cannot be synchronized, record oscillator output for signals at the 27 frequencies given in Table 205.1. The differences between the combined response thus obtained and the oscillator response obtained previously will describe the frequency response of the graphic level recorder.

(4) If visual observation of an indicating meter is to be used for obtaining data, the oscillator should be connected to the indicating meter input (such as the microphone input of a sound level meter) and the meter reading observed for a fixed oscillator output voltage setting for signals at the 27 frequencies given in Table 205.1.

(5) To check a tape recorder, connect the instruments as shown in Fig. 205.4. Using a 1000 Hz tone, adjust the oscillator output level to obtain a reading 15 dB below maximum record level. If the synchronized oscillator/graphic level recorder system is to be used for analysis, record an oscillator sweep over the range of 31.5–12,500 Hz, using an appropriate tape recorder input attenuator setting. Alternatively, tape-record frequency tones at the 27 frequencies given in Table 205.1.

FIG 205.2-DATA RECORDING

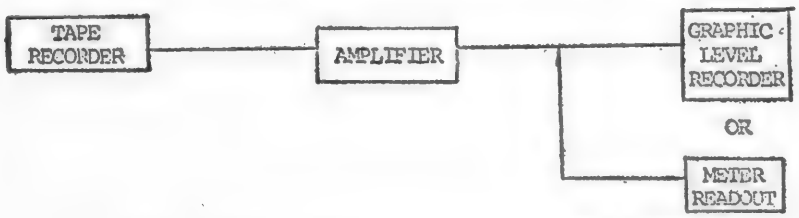


FIG. 205.3-DATA ANALYSIS AND TEST ANALYSIS

FIG. 205.4-TEST RECORDING

Replay the tape recordings using the setup shown in Fig. 205.3.

Record the data on a graphic level recorder or through visual observation of the indicating meter. Subtract the oscillator frequency response in paragraph (b)(2) of this section from the response obtained through the record-playback sequence to obtain the record/reproduce frequency response of the system except for the microphone.

(6) To obtain the overall system frequency response, add the manufacturer's microphone calibration data to the response just obtained. This may be the frequency response for the specific microphone to be used, including calibration tolerances. Alternatively, use the manufacturer's "typical" microphone response plus and minus the maximum deviation expected from "typical" including calibration tolerances. Use the microphone

response curve which corresponds to the manner in which it is used in the field. It may be required to add a correction to the response curves provided to obtain field response; refer to the manufacturer's manual.

(7) Adjustment or repair of equipment may be required to obtain response within the requirements of paragraph (a) of this section. After any adjustments, the system shall be requalified according to paragraph (b) of this section.

(c) *General comments.* (1) Calibrate tape recorders using the brand and type of magnetic tape used for actual data acquisition. Differences in tape can cause an appreciable variation in the record/reproduce frequency response characteristics of a tape recorder

(2) It shall be ensured that the instrumentation used will perform within specifications and applicable tolerances over the temperature, humidity, and other environmental variation ranges which may be encountered in vehicle noise measurement works.

(3) Qualification tests shall be performed using equipment (including cables) and recording any playback techniques identical with those used while recording vehicle noise. For example, if weighted sound level data are normally recorded, use similar weighting and apply the tolerance of Table 205.1 to the weighting curve for comparison with record-playback curves. Precautions should also be taken to ensure that source and load impedances are appropriate to the device being tested. Other data acquisition systems may use any combination of microphones, sound level meters, amplifiers, tape recorders, graphic level recorders, or indicating meters. The same approach to qualifying such a system shall be taken as described in this document for the systems depicted in Figs. 205.2, 205.3, and 205.4.

§ 205.55 Production verification.

§ 205.55–1 General standards.

(a) Every new vehicle manufactured for distribution in commerce or imported into the United States which is subject to any of the standards prescribed in this subpart:

(1) Shall be verified in accordance with the Production Verification procedures described in this subpart; and

(2) Shall be represented in a Production Verification Report, as required by § 205.55–4; and

(3) Shall be labeled in accordance with the requirements of § 205.56; and

(4) Shall conform to the applicable noise emission standard established in § 205.52 at the time of distribution in commerce.

§ 205.55–2 Production verification; compliance with standards.

(a) In order for a manufacturer to distribute vehicles of a vehicle configuration in commerce, such configuration must have undergone production verification in accordance with the requirements of this subpart and have been found to be in compliance with the applicable standards established by this subpart.

(b) (1) Production verification requirements with regard to each vehicle configuration which must be fulfilled prior to distribution in commerce of vehicles of a configuration consist of:

(i) Actual testing of a vehicle of the vehicle configuration requiring production verification, conducted pursuant to § 205.55–7, and

(ii) Recording of required information pursuant to § 205.55–8.

(iii) Actual testing or retesting by the manufacturer of any additional vehicles which may be required by an EPA Enforcement Officer or testing by the Administrator pursuant to § 205.55–10 (such additional testing or retesting shall be requested within 24 hours of testing required by paragraph (b) (1) (i) of this section); and

(iv) Compliance of the manufacturer with any requests made pursuant to §§ 205.4 and 205.53.

(2) The manufacturer shall notify the Administrator ten (10) days prior to any production verification testing pursuant to this subpart so that EPA Enforcement Officers may be present and observe such testing.

(3) The test vehicles selected in accordance with § 205.55–5 must comply with the applicable standards when tested in accordance with § 205.55–7.

(c) (1) In lieu of testing vehicles of every configuration, the manufacturer may elect to group configurations into categories and verify the configuration based on representative testing.

(2) In order for a category to be verified based on such representative vehicle testing, the following production verification requirements must be fulfilled prior to distribution in commerce of vehicles of a category:

(i) Actual testing pursuant to § 205.55–7 of a test vehicle selected in accordance with § 205.55–5 which must be a vehicle of the configuration which is identified pursuant to paragraph (d) (3) of this section as having the highest sound pressure level within the category; and

(ii) Complying with the requirements of paragraphs (b) (1) (ii), (b) (1) (iii), (b) (2), (b) (3), and (b) (4) of this section.

(d) (1) If a manufacturer elects to production verify all or part of his product line pursuant to paragraph (c) of this section then such manufacturer shall group affected vehicle configurations into categories.

(2) Each category will be determined by a separate combination of at least the following parameters (a manufacturer may use more parameters):

(i) Engine type.
(*a*) Reciprocating gasoline.
(*b*) Diesel—two cycle.
(*c*) Diesel—four cycle.
(*d*) Rotary—(Wankel).
(*e*) Turbine.
(*f*) Reciprocating (other fuels).
(ii) Cab type or vehicle model.
(*a*) Conventional—long.
(*b*) Conventional—short.
(*c*) Cab over axle/engine.
(*d*) Cab over axle/engine—sleeper.
(iii) Engine manufacturer.
(iv) Engine displacement.
(v) Engine configuration (L–6, V–8).

(3) The manufacturer shall identify the configuration within each category which emits the highest sound pressure level (dB(A)) based on the criteria in § 205.55–3.

(e) (1) If after a review of the test reports and data submitted by the manufacturer and data derived from additional testing conducted pursuant to § 205.55–4, or other data, the Administrator determines that vehicle configuration has been incorrectly grouped into a category he may notice the manufacturer of such error and request that the manufacturer submit a revised report and that he re-verify according to the corrected verification request.

(2) The manufacturer may, at his option, proceed with any of the following alternatives with respect to any vehicle configuration represented by a test vehicle determined not in compliance with applicable standards:

(i) Delete that configuration from the production verification report. Configurations so deleted may be included in a later report under § 205.55–4.

(ii) Modify the test vehicle and demonstrate by testing that it meets applicable standards. Select another production vehicle which is in all material respects the same as the first vehicle, as modified, which shall then be operated and tested in accordance with applicable test procedures.

(iii) The vehicle configurations represented by the failed test vehicle are not production verified.

(f) Where possible a manufacturer should include in a single production verification report all vehicles for which production verification is required. A manufacturer may, however, choose to submit separate production verification reports for part of his product line.

§ 205.55–3 Configuration identification.

(a) A separate vehicle configuration shall be determined by each combination of the following parameters:

(1) Cab with/without sleeper.
(2) Cooling system.
(i) Shutters (with/without).
(ii) Fan.
(*a*) Diameter.
(*b*) Drive ratio $\frac{\text{(max fan RPM)}}{\text{max engine RPM}}$.
(*c*) Blade.
(*1*) Spacing (even/staggered).
(*2*) Number.
(*d*) Drive type.
(*1*) Direct.
(*2*) Thermostatic.
(i) On-off.
(ii) Modulated.
(iii) Shroud.
(*a*) Engine mounted.
(*b*) Frame mounted.
(3) Air intake system.
(i) Natural.
(ii) Turbo-charged (with/without insulated inlet).

(4) Engine system.
(i) Horsepower.
(ii) Governed RPM (if not governed state maximum RPM).
(5) Exhaust system.
(i) Number and diameter of exhaust pipes.
(ii) Number and volume of mufflers.
(iii) Configuration of pipes (vertical, horizontal (within frame, outside frame), other).
(iv) Type or thickness of composition of mufflers or pipes.
(6) Driveline system.
(i) Transmission (manufacturer and model number).
(ii) Differential.
(*a*) Number (quantity).
(*b*) Manufacturer and model number.
(7) Category parameters listed in § 205.55–2(d)(2).
(8) Other insulation, apparatus, component or system installed primarily to attenuate noise emissions.

§ 205.55–4 Production verification report; required data.

(a) Prior to the distribution in commerce of any vehicle to which these regulations apply, the manufacturer shall submit a production verification report. The report shall be submitted to the Director, Mobile Source Enforcement Division, Office of Enforcement and General Counsel (EG–340), Environmental Protection Agency, 401 M Street, SW, Washington, D.C. 20460.

(b) The report shall be signed by a vice-president of the manufacturer and shall include the following:

(1) A description of the manufacturer's noise emission test facilities which meet the specifications of § 205.54 and have been utilized to conduct testing pursuant to this subpart.

(2) A description of normal predelivery maintenance procedure. This information shall be updated in accordance with § 205.53.

(3)(i) A list and description of all vehicle configurations, as determined in accordance with § 205.55–3, to be distributed in commerce by the manufacturer including a list identifying or defining any element of design or device incorporated into vehicles for the purpose of noise control.

(ii) If a manufacturer elects to production verify pursuant to § 205.55–2(c) such list of configurations shall be grouped into categories and the configuration, within each category, which is estimated to have the highest sound pressure level shall be identified.

(iii) The average (estimated or actual) sound pressure level (dB(A)) shall be stated for each configuration in the category. The manufacturer may estimate the average sound pressure level based on his best technical judgement and/or data. The criteria used to estimate each sound pressure level shall be stated with the estimates.

(4) For each test conducted pursuant to § 205.55–7.

(i) Test vehicle description including:
(*a*) Configuration identificaiton in accordance with § 205.55–3 and category identification where applicable.
(*b*) Year, make, build date, and model of vehicle.
(*c*) Vehicle identification number.
(ii) Test numbers and results of all official tests conducted in accordance with § 205.55–7 including, (*a*) for a valid test, sound pressure level measurement for each pass in accordance with § 205.55–8 and average sound pressure level calculated in accordance with § 205.54–1; and (*b*) for each invalid test, sound pressure level measurement for each pass recorded in accordance with § 205.55–8 and the reason for invalidation.
(iii) A complete description of any preparation, maintenance or testing which was performed on the vehicle and (*a*) has not been reported pursuant to any other paragraph of this subpart and (*b*) shall not be performed on all other production vehicles.
(iv) Where a replacement vehicle was necessary, the reason for replacement and test results, if any, for replaced vehicle.
(v) Any other information the Administrator may request relevant to the determination as to whether the manufacturer's vehicles have been or are being distributed in commerce in compliance with these regulations.
(vi) The following statement and endorsement:

This report is submitted pursuant to sections 6 and 13 of the Noise Control Act of 1972. All testing for which data is reported herein is conducted in strict conformance with applicable regulations under 40 CFR 205 et. seq. All the data reported herein is a true and accurate representation of such testing. All other information reported herein is, to the best of _____ knowledge, true
(company name)
and accurate. I am aware of the penalties associated with violations of the Noise Control Act of 1972 and the regulations thereunder.

(Vice President Company)

§ 205.55–5 Test vehicle selection.

(a) Test vehicles of a configuration for which production verification testing in accordance with § 205.55–7 is required by § 205.55–2 shall be selected in accordance with the following criteria:

(1) The test vehicle shall be the first vehicle of the subject configuration which has been assembled using the manufacturer's normal mass production processes and will be sold or offered for sale in commerce.

(2) No quality control, quality assurance, testing, assembly or selection procedures shall be used on the test vehicle or any portion thereof, including parts and subassemblies that will not be used during the production and assembly of all other vehicles of that configuration which will be distributed in commerce, except as required by these regulations.

§ 205.55–6 Test vehicle preparation.

(a) Prior to the official test, the test vehicle selected in accordance with § 205.55–5 shall not be prepared, tested, modified, adjusted, or maintained in any manner (except as provided in paragraph (b) of this section) that is not part of the manufacturer's prescribed end-of-line inspection procedures which are documented in the manufacturer's vehicle assembly and inspection procedures, or that is not part of the normal predelivery procedure for all similar production vehicles of that configuration as are permitted under this subpart or are approved in advance by the Administrator: Except, That equipment or fixtures necessary to conduct the test may be installed on the vehicle: *Provided*, That such equipment or fixtures (1) shall have no effect on the noise emissions of the vehicle, and (2) shall be adequately described in the production verification report submitted pursuant to § 205.55–4.

(b) In the event of vehicle malfunction (i.e., failure to start, misfiring cylinder, etc.), the manufacturer may perform the maintenance that is necessary to enable the vehicle to operate in the normal manner, *Provided*, That such maintenance is documented and reported in accordance with the applicable section of this subpart.

§ 205.55–7 Test procedures.

(a) The manufacturer shall conduct one valid test in accordance with the test procedure specified in § 205.54 for each vehicle selected for verification testing pursuant to § 205.55–2.

(b) No maintenance will be performed on test vehicles, except as provided for by § 205.55–6 nor will any vehicle substitution or replacement be allowed, unless provided for by the Administrator. In the event a vehicle is unable to complete the emission test, the manufacturer may request that the Administrator authorize him to repair or replace the vehicle. Any replacement vehicles will be production vehicles of the same configuration as the replaced vehicle and will be subject to all the relevant provisions of these regulations.

(c) In the event a vehicle fails to comply with the standards of this subpart when tested in accordance with the procedures specified in paragraph (a) of this section, the manufacturer may proceed in accordance with § 205.55–2(e)(2).

§ 205.55–8 Information to be recorded.

The following information shall be recorded with respect to each test conducted pursuant to § 205.55–7.

(a) Manufacturer's test report number,
(b) Vehicle tested (brief description and manufacturer's reference number, if used),
(c) Date and time of test,
(d) Supervisory personnel (names),
(e) Instrument operator (names),
(f) Driver or operator (names),

(g) Vehicle: make—vehicle number—model year—configuration identification—category identification,

(h) Test site location and/or designation,

(i) All pertinent instrument information such as tuning-gain—serial numbers—range,

(j) Recorder charts: identify zero, span, sound level, and wind velocity traces,

(k) Barometric pressure, ambient temperature, humidity, road surface condition and general weather conditions,

(l) Ambient noise level,

(m) Number of persons, and/or description of equipment of other objects within test field and location of each,

(n) Any other information as the Administrator may require to enable him to determine whether such manufacturer has acted or is acting in compliance with the Act.

(o) In addition, the following shall be recorded for Low Speed Sound Emission tests (§ 205.54–1) conducted pursuant to § 205.57–5.

(1) Gear ratio and approach RPM used during the test and the number of passes required to determine these parameters. (Statement that no sound level data were recorded during trial runs),

(2) For each pass during which sound level data is recorded, maximum speed, engine RPM and sound level attained before leaving the end zone.

§ 205.55–9 Testing by the Administrator.

(a)(1) The Administrator may require that the vehicle tested for production verification or other vehicles be submitted to him, at such place and time as he may designate for the purpose of conducting tests in accordance with § 205.55–7.

(2) The Administrator may specify that he will conduct such testing at the manufacturer's facility, in which case instrumentation and equipment specified by the Administrator of the type required by these regulations shall be made available by the manufacturer for test operations.

(3) Any testing conducted pursuant to this paragraph shall be performed within fifteen (15) days of notification to the manufacturer that such testing is required except that such period may be extended by increments of 24 hours or one business day where weather conditions during the normal working hours in any 24 hour period do not permit testing: *Provided*, That the weather conditions are reported.

(b)(1) If based on test conducted by the Administrator using a manufacturer's test facilities, the Administrator determines that test facility is inappropriate for conducting the tests required by this part, he will notify the manufacturer in writing of his determination and the reasons therefor.

(2) After the notification in paragraph (b)(1) of this section, no data derived from the subject test facility will be acceptable for the purpose of this part.

(3) The manufacturer may request in writing that the Administrator reconsider his determination in paragraph (b)(1) of this section based on data or information which indicates that changes have been made to the test facility and such changes have resolved the reasons for disqualification.

(4) The Administrator will notify the manufacturer of his determination with regard to requalification of the test facility within 10 days of the request pursuant to paragraph (b)(3) of this section.

(5) The Administrator may, as appropriate, grant to the manufacturer an opportunity for a hearing at the time of the Administrator's notification to the manufacturer, under paragraph (b)(4) of this section, of his determination not to requalify the manufacturer's test facility. The Administrator may refuse to grant a hearing based upon his determination that the decision to issue such an order is based solely on inspection, tests, or other information under this paragraph which involves no substantial question of fact. Hearings granted under this paragraph shall be conducted under appropriate regulations.

(c)(1) Whenever the Administrator conducts a test on a test vehicle, the results of that test shall constitute the official test data for that vehicle and shall be used as production verification data for that vehicle configuration and other vehicle configuration represented by that vehicle, if any.

(2) The Administrator may accept the original production verification data upon a showing by the manufacturer that the data acquired under paragraph (a) were erroneous and that the initial data were correct.

§ 205.55–10 Addition of, changes to and deviation from a vehicle configuration during the model year.

(a) Any change to a configuration with respect to any of the parameters stated in § 205.55–3 shall constitute addition of a new and separate configuration or category to the manufacturer's product line.

(b)(1) When a manufacturer introduces a new category or configuration to his product line, he shall proceed in accordance with § 205.55–2.

(2) If the configuration to be added can be grouped within a verified category and the new configuration is estimated to have a lower sound pressure level than a previously verified configuration within the same category, the configuration shall be considered verified; Provided, That the manufacturer submits a report pursuant to § 205.55–4 with respect to such configuration ten (10) days before production of the first vehicle of such configuration and fulfills all other requirements of § 205.55–2.

§ 205.55–11 Recall of nonverified vehicles.

(a) Pursuant to section 11(d)(1) of the Act, the Administrator may issue an order to the manufacturer to recall and remedy any vehicle distributed in commerce and not in compliance with this subpart.

(b) A vehicle shall be deemed to be not in compliance with this subpart if it is of a configuration not represented in a properly filled-out production verification report as required by § 205.55–4. Such noncompliance shall include failure to report as required by § 205.55–10.

(c) Any recall order issued pursuant to this section shall be based upon a determination by the Administrator that it is probable that a vehicle configuration has been introduced into commerce, that exceeds the applicable noise emission standard, as established by this subpart. Such determination may be based upon:

(1) A technical analysis of the noise emission characteristics of the configuration in question; or

(2) Any other relevant information, including test data.

(d) Recalls conducted pursuant to this section shall be administered under appropriate regulations.

(e) Pursuant to section 11(d)(2) of the Act, the Administrator, as appropriate may grant to the manufacturer an opportunity for a hearing prior to the issuance of a recall order. The Administrator may refuse to grant a hearing based upon his determination that the decision to issue such recall order is based solely on inspection, tests, or other information which involves no substantial question of fact. Hearings granted under this paragraph shall be conducted under appropriate regulations.

(f) All costs associated with the recall and remedy of noncomplying vehicles under this section shall be borne by the manufacturer.

(g) This section shall not limit the discretion of the Administrator to take any other actions which are authorized by the Act.

§ 205.55–12 Production verification based on data for a previous model year.

(a) Production verification of each configuration will be required at the beginning of each model year except that in certain instances, the Administrator, upon request by the manufacturer, may permit the use of production verification data for specific configuration from previous production verification reports upon the following considerations:

(1) The level of the standard(s) in effect for the model years in question.

(2) Production vertification data for previous years.

(3) Data obtained from selective enforcement testing during previous model years.

(4) Engineering changes incorporated during previous model years.

§ 205.55–13 Cessation of distribution.

(a) If a configuration is found to be in nonconformity with these regulations by reason of failure to be properly production verified, as required by § 204.55–2, the Administrator may issue an order

to the manufacturer to cease to distribute in commerce compressors of that configuration: *Provided, however,* That such an order shall not be issued if the manufacturer has made a good faith attempt to properly production verify the configuration. The burden of establishing such good faith shall rest with the manufacturer.

(b) The Administrator may, as appropriate, grant to the manufacturer an opportunity for a hearing prior to the issuance of an order to cease the distribution in commerce of compressors of a specified configuration. The Administrator may refuse to grant a hearing based upon his determination that the decision to issue an order is based solely on inspections, tests or other information which invokes no substantial question of fact. Hearings granted under this paragraph shall be conducted under appropriate procedure prescribed by EPA.

§ 205.56 Labeling.

(a)(1) The manufacturer of any vehicle subject to the standards prescribed in § 205.55–2 shall, at the time of manufacture, affix a permanent, legible label, of the type and in the manner described below, to any equipment which is easily detached from such vehicle.

(2) A plastic or metal label shall be welded, riveted, or otherwise permanently attached to the vehicle in a readily visible position in the operator's compartment.

(3) The label shall contain the following information lettered in the English language in block letters and numerals, which shall be of a color that contrasts with the background of the label;

(i) The label heading: Vehicle Noise Emission Control Information;

(ii) Full corporate name and trademark of manufacturer;

(iii) Vehicle configuration identification which has been reported to U.S. EPA pursuant to 205.55–4, date of manufacture;

(iv) The statement: "This Vehicle Conforms to U.S. E.P.A. Regulations for Noise Emissions Applicable to 197X Model Year Vehicles."

The following acts by any person are prohibited by the Noise Control Act of 1972:

(*a*) The removal or rendering inoperative, other than for purposes of maintenance, repair, or replacement, of any noise control device or element of design (listed in the owner's manual) incorporated into this vehicle in compliance with the Noise Control Act.

(*b*) The use of this vehicle after such device or element of design has been removed or rendered inoperative."

(v) Vehicles manufactured solely for use outside the United States shall be clearly labeled "For Export Only."

§ 205.57 Selective enforcement auditing.

§ 205.57–1 Test request.

(a) The Administrator will request all testing under this subpart by means of a test request addressed to the manufacturer.

(b) The test request will be signed by the Assistant Administrator for Enforcement and General Counsel or his designee. The test request will be delivered by an EPA Enforcement Officer or sent by registered mail, return receipt requested, to the plant manager or other responsible official at the vehicle assembly plant from which a vehicle will be selected and tested, and a copy of the test request may be delivered to or sent by regular mail to the authorized company representative of the manufacturer who signs the Production Verification Report submitted by the manufacturer pursuant to the requirements of the applicable Sections of this Subpart.

(c) The test request will specify the vehicle configuration selected for testing, the batch selected for testing, the manufacturer's plant or storage facility from which the vehicle must be selected, the time at which a vehicle must be selected, and the batch size. The test request may include an alternative configuration selected for testing in the event that a vehicle of the first specified configuration is not available for testing because the vehicle is not being manufactured at the specified plant and/or not being manufactured during the specified time or not being stored at the specified plant or storage facility.

(d) Any manufacturer shall, upon receipt of the test request, select and test batch samples of vehicles from two consecutively produced batches of vehicles specified in the test request in accordance with these regulations and the conditions specified in the test request.

(e) Any testing conducted at the manufacturer's facility pursuant to a test request shall be scheduled by the manufacturer within 24 hours of the request except that such scheduling may be delayed for increments of 24 hours where weather conditions during normal working hours in any 24 hour period do not permit testing.

(f) The Administrator may issue an order to the manufacturer to cease to distribute into commerce vehicles of a specified configuration being manufactured at a particular facility if:

(1) the manufacturer refuses to comply with the provisions of a test request issued by the Administrator pursuant to this section; or

(2) the manufacturer refuses to comply with any of the requirements of this section.

(g) A cease-to-distribute order shall not be issued under paragraph (f) of this section if such refusal is caused by conditions and circumstances outside the control of the manufacturer which renders it impossible to comply with the provisions of a test request or any other requirements of this section. Such conditions and circumstances shall include, but are not limited to, any uncontrollable factors which result in the temporary unavailability of equipment and personnel needed to conduct the required tests, such as equipment breakdown or failure or illness of personnel, but shall not include failure of the manufacturer to adequately plan for and provide the equipment and personnel needed to conduct the tests. The manufacturer will bear the burden of establishing the presence of the conditions and circumstances required by this paragraph.

§ 205.57–2 Testing by the Administrator.

(a)(1) The Administrator may require, pursuant to a test request that one or more production vehicles of a specified configuration be selected in a manner designated by him and submitted to him at such place and time as he may designate for the purposes of conducting noise emission tests in accordance with § 205.57–5 to determine whether such vehicles conform to the applicable regulations.

(2) The Administrator may specify that he will conduct such testing at the manufacturer's facility, in which case instrumentation and equipment specified by the Administrator of the type required by these regulations shall be made available by the manufacturer for test operations.

(3) Any testing conducted at a manufacturer's facility pursuant to this paragraph shall be performed within fifteen (15) normal working days of notification to the manufacturer that such testing is required: Except, That such period may be extended by the manufacturer by increments of 24 hours or one business day where weather conditions during the normal working hours in any 24 hour period do not permit testing: *Provided,* That the weather conditions are recorded.

(b)(1) If based on noise emissions test conducted by the Administrator using a manufacturer's test facilities, the Administrator determines that test facility is inappropriate for conducting the tests required by this part, he will notify the manufacturer in writing of his determination and the reasons therefor.

(2) After the notification in paragraph (b)(1) of this section no data derived from the subject test facility will be accepted for purposes of determining compliance with these regulations and the Administrator may issue an order with respect to the vehicle configuration in question to cease to distribute in commerce vehicles of such configuration.

(3) The manufacturer may request in writing that the Administrator reconsider his determination in paragraph (b)(2) of this section based on data or information which indicates that changes have been made to the test facility and such changes have resolved the reasons for disqualification.

(4) The Administrator will notify the manufacturer of his determination with regard to the requalification of the test facility within 10 days of the request pursuant to paragraph (b)(3) of this section.

(c)(1) Whenever the Administrator conducts a noise emissions test on a test vehicle, the results of that test shall constitute the official test data for that vehicle.

(2) The Administrator may accept the manufacturer's data upon a showing by the manufacturer that the data acquired under paragraph (a) of this section were erroneous and that the initial data were correct.

(d) The Administrator may, as appropriate, grant to the manufacturer an opportunity for a hearing prior to the issuance of an order to cease the distribution into commerce of vehicles of a specified configuration under paragraph (b)(2) of this section. The Administrator may refuse to grant a hearing based upon his determination that the decision to issue such an order is based solely on inspection, tests or other information which involves no substantial question of fact. Hearings granted under this paragraph shall be conducted under appropriate regulations.

§ 205.57–3 Test vehicle sample selection.

(a) Vehicles comprising the batch sample which are required to be tested pursuant to a test request in accordance with this subpart will be randomly selected from a batch of vehicles of the configuration specified in the test request. The random sampling will be achieved by sequentially numbering all of the vehicles in the batch and then using a table of random numbers to select the number of vehicles as specified in paragraph (c) of this section based on the batch size designated by the Administrator in the test request. An alternative random sampling plan may be used by a manufacturer: *Provided,* That the manufacturer requests approval of such a plan in advance of receipt of a test request and if the Administrator approves such a plan. A random sampling plan will be used regardless of whether the vehicles of the configuration selected for testing are scheduled for production, undergoing production or stored in the manufacturer's storage facility.

(b) For 1977 and later model years the designated Acceptable Quality Level is 6.5 percent. The appropriate sampling plans associated with the designated AQL are contained in Appendix I, Table II for normal inspection and in Appendix I, Table III for tightened.

(c) The appropriate batch sample size will be determined by reference to Tables I and II or III. A code letter is obtained from Table I based on the batch size designated by the Administrator in Table I based on the batch size designated by the Administrator in a test request. The batch sample size will be obtained from Appendix I, Table II when normal inspection is in effect and from Table III when tightened inspection is in effect. Normal inspection will be used for the first batch, and for the second batch where the first batch is accepted, and tightened inspection will be used for subsequent batches after rejection of the first batch or where the first batch is accepted, after rejection of the second batch. The batch sample size will be equal to the maximum cumulative sample size for the appropriate code letter obtained from Table I plus an additional ten percent rounded off to the next highest number.

(d) Individual vehicles comprising the test sample will be randomly selected from the batch sample using the same random sampling plan as in paragraph (a) of this section. Test sample size will be determined by entering Table II or III, depending on whether normal or tightened inspection is in effect, at the appropriate code letter.

(e) Unless otherwise indicated in the test request, the manufacturer will select the batch sample from the production batch, next scheduled after receipt of the test request, of the configuration specified in the test order.

(f) Unless otherwise indicated in the test request, the manufacturer shall select according to the method described in this section, the vehicles designated in the test request for testing.

(g) At their discretion, EPA Enforcement Officers, rather than the manufacturer, may select the vehicles designated in the test request for testing.

(h) The manufacturer will keep on hand all vehicles in the batch sample until such time as the batch is accepted or rejected in accordance with § 205.57–8.

§ 205.57–4 Test vehicle preparation.

(a) The manufacturer shall not adjust, prepare, or modify the vehicle and shall not perform noise and emission tests on vehicles selected for testing pursuant to the test request unless such adjustments, preparation, modification and/or tests are part of the manufacturer's prescribed end-of-line inspection procedures, and are documented in the manufacturer's vehicle assembly and inspection procedures or unless such adjustments and/or tests are required or permitted under this subpart or are approved in advance by the Administrator. The manufacturer may perform adjustments, preparation, modification and/or tests normally performed by his dealer to prepare the vehicle for delivery to a customer or the adjustments, preparation, modification and/or tests normally performed at the port-of-entry by the manufacturer to prepare the vehicle for delivery to a dealer or customer; Provided, That, such adjustments, preparation, modification or tests are documented and approved by the Administrator in advance.

(b) Equipment or fixtures necessary to conduct the test may be installed on the vehicle: *Provided,* That such equipment or fixtures (1) shall have no effect on the noise emissions of the vehicle, and (2) shall be adequately described in the final report submitted pursuant to § 205–57–7.

(c) In the event of vehicle malfunction (i.e., failure to start, misfiring cylinder, etc.), the manufacturer may perform the maintenance that is necessary to enable the vehicle to operate in normal manner: *Provided,* That such maintenance is documented and reported in accordance with § 205.55–7.

(d) The test vehicle of the configuration selected for testing shall have been assembled by the manufacturer for distribution into commerce using the manufacturer's normal mass production processes.

(e) No quality control, testing, assembly or selection procedures shall be used on the completed vehicle or any portion thereof, including parts and subassemblies, that will not be used during the production and assembly of all other vehicles of that configuration or vehicle configurations represented by that configuration which will be distributed in commerce, except as required by these regulations.

§ 205.57–5 Test procedures.

(a) The manufacturer shall conduct one valid test in accordance with the test procedure specified in § 205.54 for each vehicle selected for assembly line testing pursuant to this Subpart.

(b) No maintenance will be performed on test vehicles, except as provided for by § 205.57–4, nor will any vehicle substitution or replacement be allowed, unless otherwise provided by the Administrator. In the event a vehicle is incapable of completing the noise emission tests because of a substantial vehicle malfunction or problem, the manufacturer may request that the Administrator authorize him to repair the vehicle or the manufacturer may request that the Administrator replace the vehicle when the malfunction or problem is not readily repairable within a reasonable period of time, or the Administrator may order the manufacturer to repair or replace the vehicle. Any replacement vehicles will be randomly selected from the batch sample.

(c) The manufacturer shall complete noise emission testing on a minimum of ten vehicles per day for each test site at his testing facility; Except, That the Administrator may approve a longer period based on a request by the manufacturer accompanied by a satisfactory justification.

(d) The manufacturer will be allowed 24 hours to ship vehicles from a batch sample from the assembly plant to the testing facility if the facility is not located at the plant or in close proximity to the plant; Except, That the Administrator may approve more time based upon a request by the manufacturer accompanied by a satisfactory justification.

§ 205.57–6 Information to be recorded.

The following information shall be recorded with respect to each test conducted pursuant to § 205.57–5 and retained in accordance with § 205.53.

(a) Manufacturer's test report number,

(b) Vehicle tested (brief description),

(c) Date and time of the test,

(d) Supervisory personnel (names),

(e) Instrument operator (names),

(f) Driver or operator (names),

(g) Vehicle: make—vehicle number—model year—configuration identification—category identification,

(h) Test site location and/or designation,

(i) All pertinent instrument information such as tuning—gain—serial number—detector number—range,

(j) Recorder charts: identifying zero, span, sound level, and wind velocity traces,

(k) Barometric pressure, ambient temperature, humidity, road surface condition and general weather conditions,

(l) Ambient noise level,

(m) Number of persons, and/or description of equipment or other objects within test field and location of each with,

(n) Any other such information as the Administrator may require to enable him to determine whether such manufacturer has acted in compliance with the Act.

(o) In addition, the following shall be recorded for low speed sound emission tests (§ 205.54–1) conducted pursuant to § 205.57–5.

(1) Gear ratio and approach RPM used during the test and the number of passes required to determine these parameters. (Statement that no sound level data was recorded during trial runs.)

(2) For each pass during which sound level data is recorded, maximum speed, engine RPM and sound level attained before leaving the end zone.

§ 205.57–7 Reporting of test results.

(a) (1) The manufacturer shall report by telephone the numerical results of all testing conducted pursuant to § 205.57–1, § 205.57–2, § 205.57–9, and § 205.57–10 performed in any twenty-four hour period at the opening of the first normal working day following this test period: except, that any manufacturer whose testing facility is not located on continental United States need only send the report required in paragraph (e) of this section.

(2) For each test conducted the manufacturer will provide the following information:

(i) Configuration and category identification where applicable,

(ii) Year, make, build date, and model of vehicle,

(iii) Vehicle identification number (VIN),

(iv) Test results (by VIN) in accordance with § 205.55–4(b) (4) (ii).

(b) In addition the manufacturer shall send a copy of the test report by registered airmail for such period at the conclusion of any testing done during each twenty-four hour period. The report shall contain the final test results by vehicle identification numbers for all vehicles tested in any twenty-four hour period. The first test report for each batch sample will contain a listing of all VIN's in that batch.

(c) In the case where an EPA Enforcement Officer is present during testing required by this subpart, the written reports requested in paragraph (3) of this section may be given directly to the Enforcement Officer in lieu of airmail and telephone reports.

(d) Within five days after completion of testing of all vehicles in a batch sample the manufacturer shall submit to the Administrator a final report which will include the information required by the test request in the format stipulated in the test request in addition to the following:

(1) The location and description of the manufacturer's emission test facilities which meet the specifications of subpart A and were utilized to conduct testing reported pursuant to this section.

(2) A description of the random vehicle selection method used, referencing any tables of random numbers that were used, name of the person in charge of the random number selection.

(3) For each test conducted,

(i) Test vehicle description including:

(*a*) Configuration and category identification where applicable,

(*b*) Year, make, build date, and model of vehicle,

(*c*) Vehicle identification number,

(ii) Test numbers and results of all official tests conducted in accordance with § 205.57–5 including, (*a*) for the valid test, sound pressure level measurement for each pass and average sound pressure level recorded and/or calculated in accordance with § 205.57–6 and (*b*) for each invalid test, sound pressure level measurement for each pass recorded and/or calculated in accordance with § 205.57–6 and the reason for invalidation.

(iii) A complete description of any modification, repair, preparation, maintenance and/or testing which was performed on the test vehicle and (*a*) has not been reported pursuant to any other paragraph of this subpart and (*b*) will not be performed on all other production vehicles.

(iv) Where a replacement vehicle was authorized by the Administrator, the reason for the replacement and, if any, the test results for replaced vehicle.

(v) Any other information the Administrator may request relevant to the determination as to whether the manufacturer's vehicles have been or are being distributed in commerce in compliance with these regulations.

(vi) The following statement and endorsement:

This report is submitted pursuant to sections 6 and 13 of the Noise Control Act of 1972. All testing for which data is reported herein was conducted in strict conformance with applicable regulations under 40 CFR Part 205, et seq. All the data reported herein is a true and accurate representation of such testing. All other information reported herein is, to the best of _____
(company)
knowledge, true and accurate. I am aware of the penalties associated with violations of the Noise Control Act of 1972 and the regulations thereunder.

_____
(Vice President Company)

§ 205.57–8 Acceptance and rejection of batches.

(a) A failing vehicle is one whose measured noise emissions are higher than the applicable noise emissions standard.

(b) The batch from which a batch sample is selected will be accepted or rejected based upon the number of failing vehicles in the batch sample. A sufficient number of test samples will be drawn from the batch sample until the cumulative number of failing vehicles is less than or equal to the acceptance number or greater than or equal to the rejection number appropriate for the cumulative number of vehicles tested. Normal inspection level will be used for the first batch and the acceptance and rejection numbers at the appropriate code letter obtained according to § 205.57–3 will be used in determining whether the acceptance or rejection of a batch has occurred.

(c) Acceptance or rejection of a batch takes place when a decision under paragraph (a) of this section is made on the last vehicle required to make a decision under paragraph (b) of this section.

(d) If the initial batch is accepted the manufacturer will be required to test, using normal inspection, vehicles from a batch sample drawn from the next batch scheduled for production after the first batch.

(e) If the second batch is accepted the manufacturer shall not be required to perform any additional testing on vehicles from subsequent batches pursuant to the initiating test order.

§ 205.57–9 Additional testing.

(a) Where the initial batch is rejected, or where the first batch was accepted and a second batch was rejected after being tested using normal inspection, the manufacturer shall continue to select and test vehicles of consecutive batches of the specified configuration on a continuous basis using tightened inspection until such time as five consecutive batches have been accepted or until the manufacturer has inspected ten successive consecutive batches and been unable to accept five consecutive batches or until the testing of further consecutive batches could not result in the acceptance of five consecutive batches out of ten tested batches: except, that the Administrator may allow the manufacturer to test one additional consecutive batch where four consecutive batches have been accepted and a total of ten successive consecutive batches have been tested using tightened inspection.

(b) The Administrator may (1) terminate testing earlier than required in paragraph (a) of this section based on his judgment that further testing will not influence his judgement that the manufacturer's vehicles are being manufactured in compliance with the regulations, (2) terminate testing earlier than required in paragraph (a) of this section based on a request by the manufacturer accompanied by voluntary cessation of distribution of vehicles from the configuration in question at all plants: *Provided*, That once production is reinitiated the manufacturer must take the action described in § 205.57–12 prior to distribution into commerce of any vehicles from any plant of the vehicle configuration in question.

§ 205.57–10 Continued testing.

(a) If a manufacturer must in accordance with § 205.57–9 continue to inspect vehicles of a particular configuration for ten consecutive batches, or some other number as maybe designated by the Administrator, and is unable to accept five consecutive batches, the Administrator may require continued 100 percent testing with respect to all vehicles of that configuration produced at that plant.

(b) If the results of vehicle testing pursuant to these regulations indicate that vehicles of a particular configuration do not conform to the regulations, the Administrator may require testing pursuant to a test request for vehicles of that configuration manufactured by the manufacturer in other plants.

(c) If the Administrator determines that vehicles in two or more vehicle configurations belonging to the same category, based on tests performed pursuant to these regulations, do not conform to the regulations, the Administrator may require testing for vehicles of that category produced at one or more plants.

(d) The Administrator will notify the manufacturer in writing of his intent to require any 100 percent testing of vehicles in paragraph (a) of this section.

§ 205.57–11 Cessation of distribution.

(a) In lieu of requiring 100 percent continuous testing of vehicles of configurations found to be in nonconformity with these regulations the Administrator may issue an order to the manufacturer to cease distribution in commerce of vehicles of a specified configuration being manufactured at a particular facility.

(b) The decision to issue such an order will be made by the Administrator based on such criteria as the final test results, the degree of nonconformity, the nature of the nonconformity, the identified cause of the nonconformity, the identified remedy for the nonconformity or other relevant data; except, that the Administrator's decision to issue such an order provided for in § 205.4, § 205.57–1 or § 205.57–2, need not be based on such criteria.

(c) Pursuant to section 11(d)(2) of the Act, the Administrator may, as appropriate, grant to the manufacturer an opportunity for a hearing prior to the issuance of an order to cease the distribution into commerce of vehicles of a specified configuration. The Administrator may refuse to grant a hearing based upon his determination that the decision to issue such an order is based solely on inspection, tests or other information which invokes no substantial question of fact. Hearing granted under this paragraph shall be conducted under appropriate procedures prescribed by EPA.

§ 205.57–12 Prohibition on distribution in commerce: manufacturer's remedy.

(a) Once continuous testing has been instituted on a configuration/category pursuant to § 205.57–10 or the Administrator has issued an order to the manufacturer to cease distribution in commerce of vehicles of a configuration, the manufacturer must take the following actions before the Administrator will consider discontinuing such testing or rescinding such order requiring cessation of sale:

(1) Submit a written report to the Administrator which identifies the reason for the noncompliance of the vehicles, describes the problem, and describes the proposed quality control and/or quality assurance remedies to be taken by the manufacturer to correct the problem or follows the requirements for an engineering change pursuant to § 205.55–10; and

(2) Demonstrates that the specified vehicle configuration complies with the applicable noise emission standards by testing vehicles from two consecutively produced batches of that vehicle configuration in accordance with these regulations and the conditions specified in the initial test request.

(b) Any vehicle failing the prescribed emission tests may not be distributed in commerce until necessary adjustments or repairs have been made and the vehicle passes a retest.

(c) No vehicles of a rejected batch may be distributed in commerce until the manufacturer has demonstrated to the satisfaction of the Administrator that such vehicles do in fact conform to the regulations, except: That, any vehicle that has been tested and does in fact conform with those regulations may be distributed in commerce. Failing vehicles may not be distributed into commerce except in accordance with paragraph (b) of this section.

§ 205.57–13 Recall of noncomplying vehicles.

(a) The Administrator may issue an order to the manufacturer to recall and remedy any vehicle distributed in commerce which are of a specified configuration or category which has been determined to be a failure when tested in accordance with § 205.57–5.

(b) Recalls conducted pursuant to this section shall be administered under appropriate regulations.

(c) The Administrator may, as appropriate, grant to the manufacturer an opportunity for a hearing prior to the issuance of a recall order. The Administrator may refuse to grant a hearing based upon his determination that the decision to issue such recall order is based solely on inspection, tests, or other information which invokes no substantial question of fact. Hearings granted under this paragraph shall be conducted under appropriate procedures prescribed by EPA.

(d) All costs associated with the recall and remedy of noncomplying vehicles under this section shall be borne by the manufacturer.

(e) This section shall not limit the discretion of the Administrator to take any other actions which are authorized pursuant to the Act.

§ 205.58 Useful life requirements.

§ 205.58–1 Warranty.

(a) The manufacturer of a motor vehicle regulated under this part shall include, in the owner's manual or in other information supplied to the ultimate purchaser, the following statement:

NOISE EMISSIONS WARRANTY

The manufacturer warrants to the first retail purchaser and each subsequent purchaser that this motor vehicle was designed, built and equipped at the time of sale to the first retail purchaser to conform with all applicable U.S. E.P.A. noise control regulations.

This warranty is not limited to any particular part, component, or system of the motor vehicle. Defects in the design, assembly, or in any part, component, or system of the vehicle which, at the time of sale to the first retail purchaser, caused noise emission to exceed Federal standards, are covered by this warranty for the life of the vehicle.

(b) Not later than the date of submission of the product verification report required by § 205.55–4, the manufacturer shall submit to the Administrator two (2) copies of the written noise emission warranty required by paragraph (a) of this section and two (2) copies of all other information provided to the ultimate purchaser which could reasonably be construed as impacting on the warranty.

(c) Not later than ten (10) days after dissemination, the manufacturer shall submit two (2) representative copies of all information of a general nature, and modifications thereto, which is provided to dealers, zone representatives, or other agents of the manufacturer regarding the administration and application of the noise emission warranty. Information regarding noise emission warranty claims which is provided to a dealer or representative in response to a particular warranty claim or dealer inquiry is not considered to be information of a general nature, provided that such information does not receive broad dissemination to dealers.

(d) The provisions of this section are not intended to preclude any state or local jurisdiction from establishing and enforcing warranty provisions against a manufacturer of a motor vehicle, provided such warranty provisions are based on standards identical to those prescribed in § 205.52.

(e) All information required to be forwarded to the Administrator pursuant to this section shall be addressed to:

Director, Mobile Source Enforcement Division (EG–340)
U.S. Environmental Protection Agency
401 M Street, SW.
Washington, D.C. 20460

§ 205.58–2 Recall for failure to conform in use.

(a) Pursuant to section 11(d)(1) of the Act, the Administrator may order the manufacturer to recall any configuration of motor vehicles subject to this part if

properly maintained and operated vehicles of the configuration do not conform in use to the standards prescribed in § 205.52.

(b) For the purposes of this section, the test used to determine in-use nonconformity, may be any test prescribed in Subpart A for testing prior to sale or any other test which reasonably correlates with a test prescribed in § 205.54.

(c) The provisions of this section are not intended to prevent state and local jurisdictions from establishing and enforcing their own recall programs against manufacturers of vehicles covered by this subpart, provided such programs are based on state or local noise standards identical to those prescribed in § 205.52.

§ 205.58–3 Tampering.

(a) For each model year and for each configuration of motor vehicles covered by this part, the manufacturer shall submit to the Administrator not later than 90 days prior to the introduction into commerce:

(1) A list of the devices and elements of design which control noise;

(2) A list of those parameters, including acceptable ranges, of the devices and elements of design listed pursuant to paragraph (a)(1) of this section which are known to be related to noise control;

(3) A list of those acts, which in the manufacturer's estimation, might be done to vehicles in use, on more than an occsaional basis, and result in an increase of noise emissions above the standards prescribed in § 205.52;

(4) The estimated impact on noise emissions of those acts listed pursuant to paragraph (a)(3) of this section; and

(5) A proposed list for distribution to the ultimate purchaser of those acts which, in the manufacturer's estimation, constitute the removal or rendering inoperative of the noise control system of the vehicle for purposes other than maintenance or repair. This list should be in language understandable to purchasers; it should focus on those acts which are likely to be done to vehicles in use, and, if done, will have a serious detrimental impact on noise control.

(b) The manufacturer shall include, in the owner's manual, the following information:

(1) The statement:

TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED

Federal law prohibits the following acts or the causing thereof:

(1) The removal or rendering inoperative by any person, other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new motor vehicle for the purpose of noise control, prior to its sale or delivery to the ultimate purchaser or while it is in use, or (2) the use of the motor vehicle after such device or element of design has been removed or rendered inoperative by any person. Among those acts included in the prohibition against tampering are those acts listed below.

(2) Immediately following the statement required by paragraph (b)(1) of this section, the manufacturer shall include the list required by paragraph (a)(5) of this section, as modified by the Administrator.

(c) For the purposes of this section, if it is necessary to test to determine whether a noise control system has been rendered inoperative, noise emissions may be measured by any test prescribed in Section 54 of this part for testing prior to sale, or any other test which demonstrates that the vehicle would fail to comply with the standards prescribed in § 205.52 as measured by a test prescribed in section 54 of this part.

(d) The provisions of this section are not intended to preclude any state or local jurisdiction from adopting and enforcing their own prohibitions against the removal or rendering inoperative of noise control systems on motor vehicles subject to this part.

(e) All information required by this section to be furnished by the Administrator shall be sent to the following address:

Director, Mobile Source Enforcement Division (EG–340)
U.S. Environmental Protection Agency
401 M Street, SW.
Washington, D.C. 20460

§ 205.58–4 Instructions for maintenance, use, and repair.

(a)(1) The manufacturer shall provide to the ultimate purchaser of each motor vehicle covered by this part, written instruction for the proper maintenance, use, and repair of the vehicle to assure compliance with the standards contained in § 205.52 during the life of the vehicle.

(2) The purpose of the instructions is to inform purchasers and mechanics of those acts necessary to assure that the motor vehicle will conform to Federal noise emission standards throughout its life. Manufacturers should prepare the instructions with this purpose in mind. The instructions should be in a clear, and to the extent practicable, nontechnical language.

(3) The instructions must not be used to secure an unfair competitive advantage. They should not restrict replacement equipment or service to original equipment or dealer service. Manufacturers who refer to original equipment should be prepared to make public performance specification on such equipment.

(b) The instructions required by this section shall contain a description of the documentation which the manufacturer will require from the ultimate purchaser or any subsequent purchaser as evidence of compliance with these instructions.

(1) For this purpose, the manufacturer shall provide a record or log book which will contain a schedule of performance for all required noise emission control maintenance. Space shall be provided in this record book so that the purchaser can note therein what was done, by whom, where, and when.

(2) The record book shall contain the following statement:

In order to maintain this vehicle in compliance with applicable Federal noise control regulations for the life of the product, the owner should comply with the maintenance instruction performance schedule provided in this manual. If failure to comply with the manufacturer's instructions on the proper maintenance, use and repair of noise emission controls results in the product's nonconformity with Federal regulations, the manufacturer will be relieved of all responsibility to remedy the nonconformity. However, non-compliance with these maintenance instructions does not in any way affect the manufacturer's warranty that this product was designed, built and equipped so as to conform at the time of sale with Federal noise standards.

(c) Not later than the date of submission of the product verification report required by § 205.55–4 the manufacturer shall submit to the Administrator two (2) copies of the maintenance instructions (including the record book) required by paragraphs (a) and (b) of this section.

(d) The Administrator will require modifications to the instructions if they are not both necessary and reasonable.

(e) Information required to be provided to the Administrator pursuant to this section, shall be sent to the following address:

Director, Mobile Source Enforcement Division (EG–340)
U.S. Environmental Protection Agency
401 M Street, SW.
Washington, D.C. 20460

APPENDIX I

TABLE I—SAMPLE SIZE CODE LETTERS

Batch size	Code letter
2 to 8	A
9 to 15	B
16 to 25	C
26 to 50	D
51 to 90	E
91 to 150	F
151 to 280	G
281 to 500	H
501 to 1200	J

TABLE II.—*Sampling plans for normal inspection*

Sample size code letter	Test sample	Test sample size	Cumulative test sample size	Inspection acceptance No.	Criteria rejection No.
A	1st	2	2	0	1
	1st	2	2	0	1
B	1st	2	2	(1)	2
C	1st	2	4	(1)	2
	2d	2	6	0	3
	3d	2	8	0	3
	4th	2	10	1	3
	5th	2	12	1	3
	6th	2	14	2	3
	7th	2	2	(1)	2
D	1st	2	4	(1)	2
	2d	2	6	0	3
	3d	2	8	0	3
	4th	2	10	1	3
	5th	2	12	1	3
	6th	2	14	2	3
	7th	3	3	(1)	2
E	1st	3	6	0	3
	2d	3	9	0	3
	3d	3	12	1	4
	4th	3	15	2	4
	5th	3	18	3	5
	6th	3	21	4	5
	7th	5	5	(1)	3
F	1st	5	10	0	3
	2d	5	15	1	4
	3d	5	20	2	5
	4th	5	25	3	6
	5th	5	30	4	6
	6th	5	35	6	7
	7th	8	8	(1)	4
G	1st	8	16	1	5
	2d	8	24	2	6
	3d	8	32	3	7
	4th	8	40	5	8
	5th	8	48	7	9
	6th	8	56	9	10
	7th	13	13	0	4
H	1st	13	26	1	6
	2d	13	39	3	8
	3d	13	52	5	10
	4th	13	65	7	11
	5th	13	78	10	12
	6th	13	91	13	14
	7th	20	20	0	5
J	1st	20	40	3	8
	2d	20	60	6	10
	3d	20	80	8	13
	4th	20	100	11	15
	5th	20	120	14	17
	6th	20	140	18	19
	7th				

[1] Acceptance not permitted at this sample size.

TABLE III.—*Sampling plans for tightened inspection*

Sample size code letter	Test sample	Test sample size	Cumulative test sample size	Inspection acceptance No.	Criteria rejection No.
A	1st	3	3	0	1
B	1st	3	3	0	1
C [1]	1st	3	3	(2)	2
	2d	3	6	(2)	2
	3d	3	9	0	2
	4th	3	12	0	3
	5th	3	15	1	3
	6th	3	18	1	3
	7th	3	21	2	3
D	1st	3	3	(2)	2
	2d	3	6	(2)	2
	3d	3	9	0	2
	4th	3	12	0	3
	5th	3	15	1	3
	6th	3	18	1	3
	7th	3	21	2	3
E	1st	3	3	(2)	2
	2d	3	6	(2)	2
	3d	3	9	0	2
	4th	3	12	0	3
	5th	3	15	1	3
	6th	3	18	1	3
	7th	3	21	2	3
F	1st	5	5	(2)	2
	2d	5	10	0	3
	3d	5	15	0	3
	4th	5	20	1	4
	5th	5	25	2	4
	6th	5	30	3	5
	7th	5	35	4	5
G	1st	8	8	(2)	3
	2d	8	16	0	3
	3d	8	24	1	4
	4th	8	32	2	5
	5th	8	40	3	6
	6th	8	48	4	6
	7th	8	56	6	7
H	1st	13	13	(2)	4
	2d	13	26	1	5
	3d	13	39	2	6
	4th	13	52	3	7
	5th	13	65	5	8
	6th	13	78	7	9
	7th	13	91	9	10
J	1st	20	20	0	4
	2d	20	40	2	7
	3d	20	60	4	9
	4th	20	80	6	11
	5th	20	100	9	12
	6th	20	120	12	14
	7th	20	140	14	15

[1] If sample size equals or exceeds batch size, do 100-percent inspection.
[2] Acceptance not permitted at this sample size.

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As part of its continuing program to improve the quality of the daily FEDERAL REGISTER and CODE OF FEDERAL REGULATIONS, the Office of the Federal Register is soliciting the views of interested persons on the effectiveness of individual Federal Register documents and on regulations contained in the CODE OF FEDERAL REGULATIONS.

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First—to make each document published in the FEDERAL REGISTER easily understandable, thus making compliance easier, more efficient, and less costly; and

Second—to identify and correct any existing Federal regulations which are obsolete, unnecessarily wordy, or unclearly stated.

We believe this effort is consistent with the objectives stated by President Ford in his October 8th speech on the economy in which he announced "a joint effort by the Congress, the executive branch and the private sector to identify and eliminate existing Federal rules and regulations that increase costs to the consumer without any good reason in today's economic climate."

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- -

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B. Section(s) _____ of Title _____ of the CODE OF FEDERAL REGULATIONS impose(s) an: ☐ unnecessary; ☐ unreasonable; ☐ impractical; or ☐ obsolete requirement on those persons subject to that regulation.

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